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WHOLESALE AND EXPORT DRUGGISTS, MANUFACTURING PHARMACEUTICAL CHEMISTS

CHAULMOOGRA OIL.  
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LIQUOR FERRI DIALYSATUS.  
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See Page 52.



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**BRIGHTON SELTZER,**

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*BATTERSEA, LONDON, S.W.*

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SOLUTION OF AMMONIO-CITRATE OF BISMUTH, P.B.

All free from Silver, Lead, Arsenic, &c., &c., &c.

**CORROSIVE SUBLIMATE,**  
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AND EVERY MERCURIAL PREPARATION.

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**RASPBERRY ACID.**

SULPHITES and BISULPHITES of LIME, MAGNESIA,  
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ANY LEADING WHOLESALE HOUSE.**



# LEATH & ROSS'S HOMŒOPATHIC PHARMACIES,

9 Vere Street, W., and 5 St. Paul's Churchyard, E.C.,

**LONDON.**

SOLE PROPRIETORS OF THE

## *Doré* Transparent Glycerine SOAP.

(REGISTERED.)

### Size D 1, 2d. Tablets.

In Wood Boxes of 3 dozen each	...	...	...	...	...	...	...	15/- gross.
" " 6	...	...	...	...	...	...	...	14/- "
In 6d. Boxes, 3 Tablets in a Box	...	...	...	...	...	...	...	4/- dozen.

### Size D 2, 3d. Tablets.

In Wood Boxes of 3 dozen each	...	...	...	...	...	...	...	23/- gross.
" " 6	...	...	...	...	...	...	...	22/- "
In 9d. Boxes, 3 Tablets in a Box	...	...	...	...	...	...	...	6/- dozen.

### Size D 3, 4d. Tablets.

In Wood Boxes of 3 dozen each	...	...	...	...	...	...	...	31/- gross.
" " 6	...	...	...	...	...	...	...	30/- "
In 1/- Boxes, 3 Cakes in a Box	...	...	...	...	...	...	...	8/- dozen.

### Size D 4, 6d. Tablets.

In Wood Boxes, 3 dozen in a Box	...	...	...	...	...	...	...	46/- gross.
" " 6	...	...	...	...	...	...	...	45/- "
In 1/6 Boxes, 3 Cakes in a Box	...	...	...	...	...	...	...	12/- dozen.

### BARS, 5/6 and 11/- per Dozen.

(Packed in Boxes of 3 dozen small, or 1½ dozen large size.)

SHAVING STICKS, in neat foil-lined cases, 4/6 & 9/- per doz. } Retail,  
SHAVING CAKES, in neat foil-lined cases, 4/6 & 9/- per doz. } -/6 & 1/-.

N.B.—5 per cent. Discount for Cash with order from above Prices.

THE HIGHEST HONOURS AWARDED AT  
PHILADELPHIA, 1876. — AMERICAN INSTITUTE, 1877. — PARIS 1878.

# PETROLEUM VASELINE JELLY.

Is an absolutely Pure Jelly of Petroleum, refined by a new process, in which no chemicals are used. It contains no Paraffin or admixture of any kind. Universally regarded as the best basis for Ointments, because it is the *only* substance that will not either crystallise, oxidise, or become rancid. It defies decomposition, is entirely without odour or taste, and after having been liquefied it regains all its primitive properties on cooling.

As an Emollient it has no rival, as it is the only known substance which will not irritate the skin.

Not being a distillate of Petroleum, it is perfectly harmless when introduced into the system.

Endorsed by the entire Medical Press and Profession, and in general use in Hospitals, Dispensaries, &c., throughout the World.

Pamphlets containing original articles from distinguished Members of the Medical Profession and Pharmacists, with Prescriptions and Formulas, post free.

**We beg to call attention to the following Net Price List  
of our Vaseline Preparations:**

REGISTERED	VASELINE FOR MEDICINAL USE	{	Bottles, in fancy card cases, 3 sizes, 8s., 16s., and 33s. per dozen; in boxes (wood) of 1 dozen and of $\frac{1}{2}$ dozen.
	POMADE VASELINE FOR THE HAIR		
	VASELINE COLD CREAM . . . . .	{	Glass Pots, 2 sizes, 8s. and 16s. per dozen; in boxes of 1 dozen and of $\frac{1}{2}$ dozen.
	VASELINE CAMPHOR ICE . . . . .		
	VASELINE TOILET SOAP . . . . .	{	Fancy Paper Boxes, 8s. per dozen; in boxes of 1 dozen.
	VETERINARY VASELINE . . . . .		
			9s. per dozen Tablets, less 15% discount; in boxes of 3 tablets.
			1-lb. Bottles, 24s. per dozen; in boxes of $\frac{1}{2}$ dozen.

For the convenience of Chemists in Dispensing, &c., Vaseline is put up in 1-lb. tins, 2s. 6d., and 5-lb. tins, 2s. 3d. per lb., and the Veterinary Vaseline, in 5-lb. tins, at 9s. per tin—Packages included.

**Our Name and Registered Trade Mark is on every label and package.**

All the above articles can be obtained of Messrs. MAW, SON & CO., and all Wholesale Houses in London; MESSRS. EVANS & CO., of Liverpool; FERRIS & CO., Bristol; HATRICK & CO., NEW APOTHECARIES' CO., and BROWN BROS., Glasgow; MACKAY & CO., Edinburgh; BOILEAU & BOYD, Dublin; CLARKE & McMULLAN, Belfast; and of the Manufacturers.

MANUFACTURED ONLY BY THE  
**CHESEBROUGH MANUFACTURING CO. (NEW YORK),**  
7 SNOW HILL, LONDON, E.C.

**NOTICE.**—Paraffin adulterations and imitations of Vaseline can be readily distinguished by their odour, taste, and their grainy or crystalline structure, which is very evident to the eye when compared with the jelly-like smoothness of Pure Vaseline.



SILVER MEDAL.

SOLE MANUFACTURERS AND PROPRIETORS OF

PARIS, 1878.



# JUJUBES,

BY HAWKER'S PATENT PROCESS.

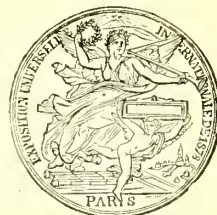
A. &amp; H.

TRADE



MARK.

A.D. 1715.



The merits of these articles have now become widely known. Prepared by this process Jujubes are rendered less adhesive, much brighter in appearance, and may be kept for long periods without change.

BLACK CURRANT GLYCERINE | LICHEN LIQUORICE | MIXED FRUITS MAGNUM BONUM | PECTORALE PINE | RASPBERRY ROSE | TAMARIND VOICE

**2/- per lb., or in tin boxes, 6d. size, 4/-; 1/- size, 8/-.**

*All the above Tins are neatly wrapped ready for sale. The One-Pound Tins are returnable at 6/- per dozen.*

**GLYCERINE, VOICE, TAMARIND (and all other) PASTILLES, 2/2 per lb.**

Or in 6d., 1s., and 1-lb. tin boxes, 4/4 and 8/6 per dozen.

GUIMAUVE.....2/6 per lb., in 1/- and 1 lb. tin boxes, 8/- per dozen.

DELECTABLE.....2/4 per lb., or in 6d. and 1/- tin boxes, 4/4 and 8/6 per dozen.

CRYSTALLIZED FRUIT PASTILLES.....2/- per lb. | CRYSTALLIZED JUJUBES (Mixed).....1/8 per lb.

## HANDSOME NEW UPRIGHT SHOW CASES.

The frames are fitted with Glass Shelves, Silvered-glass Backs, and are lettered in Gold; to display three kinds of Jujubes or Pastilles. Price 17/6 each. Size, 21 in. high, 10 in. broad, and 8 in. deep.

## ALLEN & HANBURYS,

WHOLESALE DRUGGISTS, MANUFACTURERS OF PHARMACEUTICAL PREPARATIONS, &c.,  
PLOUGH COURT, 37 LOMBARD STREET, LONDON, E.C.

*General List of Drugs, Chemicals, &c., posted free on application.*

## THE UNIVERSAL TOOTHACHE SYRINGE

Retail,  
6d. each.



Wholesale,  
4s. per dozen.

Is a great improvement upon the "DENTAL SYRINGE," as the fluid is contained in a glass bulb, which enables its contents to be seen, also prevents the liability to evaporation through long keeping or exposure.

## THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz.

It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

## "The EMPRESS of INDIA'S BOUQUET"

(Registered under the new Trade Marks Act),

### A DELIGHTFUL, REFRESHING, AND FASHIONABLE PERFUME.

"Chemists may gratify their loyalty to their hearts' content by selling a perfume just introduced by Mr. B. Robinson, of Pendleton, Manchester, called 'The Empress of India's Bouquet.' The perfume is remarkably cheap, and is by no means lacking in richness. The shilling bottles are good sized ones, corked with the patent sprinklers, and decorated with a faithful likeness of the Empress alluded to."—Editor of *The Chemist and Druggist*, November 15th, 1876.

Sold in Bottles, at 1s. each, or Treble Size, 2s. 6d.; Wholesale, 8s. per dozen in 1-dozen cases, and 20s. per dozen in 1/2-dozen cases.

Prepared only by B. ROBINSON, Operative Chemist and Distiller, PENDLETON, MANCHESTER.

**CONCENTRATED WATERS.**—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate.

N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopœia.



	Per lb.		Per lb.		Per lb.		Per lb.
Aqua Anethi, Concent.	4/0	AquaCinnam. Ver. Concent.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
" Anisi, "	4/0	" Cassia "	4/0	" Menth Pip. "	4/0	" Rosæ "	8/6
" Camphoræ "	4/0	" Flor. Aurant. "	8/6	" Ang. Con. "	6/0	" Rosæ Virgin "	10/6
" Carni "	4/0	" Flor. Sambuci "	8/6	" Virid. "	4/0		

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearson & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Raimes, Liverpool; Mather, Woolley, Manchester; Bewley & Draper, Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Raimes & Co., Edinburgh; Foggitt, Thirsk; Goodall & Co., Leeds; Clarke, Bleasdale & Co., York; McKesson & Robbins, New York. Special terms for large quantities may be had from

**B. ROBINSON, Operative Chemist, Distiller and Brewer of British Wines, Manchester.**

BY HER  
MAJESTY'S



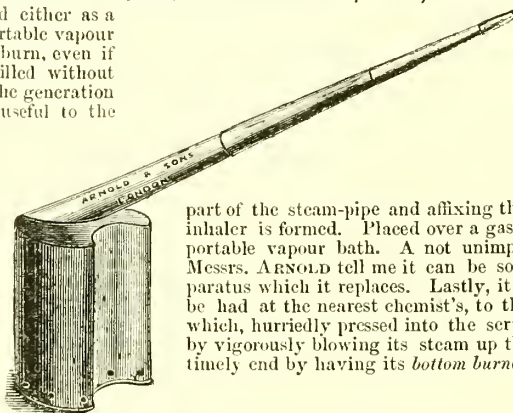
ROYAL  
LETTERS PATENT.

## ARNOLD & SONS'

Patent Vaporifer, Bronchitis Kettle, Inhaler, and Portable Vapour Bath combined.  
AS SUGGESTED BY W. L. SHEPARD, M.R.C.S., &c.

Extract from the "LANCET," Jan., 1879.

"An apparatus which can be used either as a bronchitis kettle and inhaler, or a portable vapour bath, that cannot get out of order or burn, even if allowed to boil dry, that can be refilled without moving from the fire or stopping the generation of steam, is, I think, likely to be useful to the profession, especially at this season. Such an apparatus, which I propose calling the Vaporifer, has been made for me by Messrs. ARNOLD & SONS, of West Smithfield. The woodcut sufficiently explains its very simple construction. It has no bottom, and when in use stands in any ordinary saucepan, so that, should it boil dry, the worst that can happen will be the spoiling of a sixpenny saucepan, easily replaced. The top of the apparatus is closed, and



on its inner surface, enclosing the orifice of the steam-pipe, is a movable circular chamber, having a perforated bottom, on which any drugs can be placed when it is wished to medicate the vapour. The crescent-shaped front permits of the saucepan being refilled without moving from the fire, and if boiling water be used the steam is generated continuously. By removing

part of the steam-pipe and affixing the mouthpiece, a very handy and efficient inhaler is formed. Placed over a gas-stove or spirit-lamp, it can be used as a portable vapour bath. A not unimportant advantage is its trifling cost, as Messrs. ARNOLD tell me it can be sold for less than either of the three apparatus which it replaces. Lastly, it packs in a neat, compact case, and may be had at the nearest chemist's, to the great saving of the family tea-kettle, which, hurriedly pressed into the service, displays a great deal of useless zeal by vigorously blowing its steam up the chimney, and often comes to an untimely end by having its bottom burned out."

Extract of Letter received from J. F. FINCHETTE, Esq., Portland House, Brunswick Square, W., dated Feb. 18, 1879.

"The 'Vaporifer,' all complete, came to hand safely on Saturday last, with thanks, and I consider it a marvel of cheapness and utility, and wish Dr. SHEPARD all success with his invention, which, I feel assured, only needs to be known to be appreciated. I have tried it for each of the purposes for which it is intended, and found it answer completely."

Trade Price, 42s. per doz. Retail Price, 5s. With Lamp, Saucepan, and Stand complete, 63s. per doz. Retail Price, 7s. 6d.

SOLE MANUFACTURERS AND PATENTEES—

**ARNOLD & SONS, Instrument Makers,**

By Appointment to Her Majesty's Government, St. Bartholomew's Hospital, and the Principal Provincial and Colonial Hospitals, &c.

**35 & 36 WEST SMITHFIELD, LONDON, E.C.**



# TROMMER'S EXTRACT OF MALT

In the following Combinations, viz.:—

TROMMER'S EXTRACT OF MALT with Hops.<sup>1</sup>

TROMMER'S EXTRACT OF MALT with Cod-Liver Oil.

TROMMER'S EXTRACT OF MALT with Hypophosphites.

TROMMER'S EXTRACT OF MALT with Pyrophosphate of Iron.

PREPARED BY—

**TROMMER EXTRACT OF MALT COMPANY, FREMONT, OHIO, U.S.**

From "THE LANCET," January 25, 1879.

"We find that this extract converts starch into glucose and dextrine rapidly and in large quantity. In favour it is excellent, and we have therefore no hesitation in praising it highly."

SOLE WHOLESALE AGENTS—

**LYNCH & Co., 171a & 171b Aldersgate St.,  
LONDON, E.C.**

N.B.—FULL DESCRIPTIVE PAMPHLET FORWARDED POST FREE ON RECEIPT OF APPLICATION.



# IMPORTANT NOTICE TO THE TRADE, 1879.

PRIZE MEDAL,



LONDON, 1862.

PRIZE MEDAL,



PHILADELPHIA, 1876



## LOW'S FRENCH EXTRACTS, &c., viz.:

	per lb.		per lb.		per lb.
Ext. Cassie ... ..	9/6	Ext. Rézéda ... ..	9/6	Ext. Tubereuse ... ..	9/6
„ Jasmin ... ..	9/6	„ Rondeletia ... ..	8/-	„ Violet ... ..	11/6
„ Jonquil ... ..	9/6	„ Rose ... ..	9/6	„ Verbena ... ..	8/-
„ Lily of the Valley ...	9/6	„ Rose Geranium ...	9/6	„ White Rose ... ..	10/6
„ Magnolia... ..	9/6	„ Spring Flowers ...	9/6	„ White Lilac ... ..	9/6
„ Orange Flower ...	9/6	„ Stephanotis ... ..	9/6	„ Wood Violet ... ..	11/6
„ Patchouli ... ..	9/6	„ Sweet Briar ... ..	9/6	„ Wild Rose ... ..	9/6
„ Queen of the Alps ...	9/6	„ Tea Rose... ..	9/6	„ Ylang Ylang ... ..	9/6

ARE NOW REDUCED IN PRICE, AS ABOVE.

For NEARLY 40 YEARS these EXTRACTS have borne the HIGHEST REPUTATION both for PURITY AND STRENGTH, and a trial is requested by all who have not used them. They are guaranteed to be AS FINE AS CAN BE PRODUCED AT ANY PRICE, and are only REDUCED IN PRICE consequent upon the increasing demand, and in competition with the many that have recently been put before the Trade of more or less doubtful merit. The Proprietors are confident, from their long experience, that they will compare favourably with any in the market, and that they will meet with the increased patronage they deserve.

## R. LOW, SON & HAYDON,

Perfumers, Toilet Soap Makers, and Brush Manufacturers,

330 STRAND ( OPPOSITE SOMERSET HOUSE ) LONDON.



# S. MAW, SON & THOMPSON

HAVE JUST IMPORTED

## A LARGE PARCEL OF FINE TURKEY CUP SPONGE.

The Lot is exceptionally GOOD, and well worth the attention of Buyers.

AN EARLY CALL IS SOLICITED.

7 to 12 ALDERSGATE STREET,  
LONDON.

See also Advertisement, page 21.

# FLORVITA,

## THE LIFE OF FLOWERS,

FOR STIMULATING AND QUICKENING THE GROWTH OF PLANTS, AND PRODUCING A RAPID AND HIGH DEVELOPMENT OF BLOSSOM.

This valuable Preparation is the result of several years' exhaustive trials, and it is scarcely possible to speak too confidently of it.

Plants of all descriptions, from the best known to the rarest and costliest, develop their blossom and foliage with extraordinary quickness and beauty when the Florvita is applied to them. So also with Fruits and Vegetables, which, under this treatment, reach perfection with great rapidity.

To ladies who take an interest in their flowers, both indoors and out, Florvita particularly recommends itself; for though chemically it represents a very highly concentrated fertiliser, it has not the appearance or character of what is known under the head of "Flower Manures," being a delicate pink powder soluble in water, with a most agreeable bouquet.

### From THE GARDENERS' CHRONICLE.

"A boon which amateurs, and lady gardeners especially, will welcome. According to our experience of a small quantity, it is readily dissolved in water, can be applied to plants grown in rooms without the least objection, and well answers its purpose as a fertiliser."

*Extract from Report of DR. AUGUSTUS VOELCKER, Professor of Chemistry to the Royal Agricultural Society of England, 7th June, 1878.*

"The preparation is readily soluble in water, and perfectly free from all disagreeable smell, and it may be regarded as the concentrated essence of the most valuable manures, deprived of all the disagreeable smelling and useless products of partial decomposition which generally accompany ordinary manures."

"The facility with which it can be applied, and the small quantity required to produce a visible effect upon flowers, render it an elegant and efficacious substitute for liquid manure, guano-water, &c., for use in Greenhouses and in the Flower Garden."

"A preparation so rich in Soluble Phosphates, Salts of Ammonia, Nitrates of Potash and Soda, as your Florvita, I believe, may also be used as a highly concentrated fertiliser for vegetables and every kind of kitchen garden produce."

### From THE HORTICULTURAL RECORD.

"The results of our experiments upon plants in small pots made with this material, by contrast with equal numbers similarly treated, but with ordinary water, are truly surprising."

**DIRECTIONS FOR USE.**—One teaspoonful of the Florvita to be added to each gallon of water used. The plants should be watered with it once or twice a week.

Prepared only by **PRENTICE BROS.,** Chemical Laboratory, STOWMARKET.

Sold in Bottles, 1/- and 2/6 each, and in Jars of 18/- and 36/- each.

Halfpills and Circulars can be obtained from the Wholesale Agents—Messrs. BARCLAY & SONS, Messrs. NEWBURY & SON, Messrs. MAW, SON & THOMPSON—who will also supply a very beautiful Showcard (18 in. by 15 in.) to anyone who would like one for exhibition.



# OZOKERINE

(REGISTERED).

A new preparation, PERFECT as a BASIS for OINTMENTS, of admirable consistency, bland, emollient, antiseptic, and healing.

**CANNOT BECOME RANCID.**

"Moderate in price, and deserving a careful trial."—BRITISH MEDICAL JOURNAL.

"A valuable and useful substance, and will in all probability be very largely used."—MEDICAL TIMES AND GAZETTE.

"Will take a high position among our other pharmaceutical preparations."—MEDICAL PRESS AND CIRCULAR.

"Likely to prove useful as a dressing for wounds and excoriations."—PRACTITIONER.

**OZOKERINE** is a clear, pale yellow, very slightly fluorescent body, composed of hydrocarbons akin to Paraffine in their chemical characters. It is produced from Ozokerit, or Earth Wax, by the separation of lighter and denser hydrocarbons, and subsequent purification by processes which remove smell and taste, and yield it in the pleasant form which has already gained for it a preference before other similar bodies.

**OZOKERINE** has been used with remarkable success as a simple *dressing for wounds*, its mild and healing properties rendering it peculiarly grateful to the patient.

**OZOKERINE** is unsurpassed as an *unguent basis*; *unchangeable* in itself, except by the action of the *most powerful chemical agents*, it preserves other bodies with which it may be incorporated from all tendencies to decomposition. The *superiority of Ozokerine to lard* in this respect *cannot be over-estimated*.

**OZOKERINE**, in addition to the above advantages, possesses that of being *moderate in price*, which marks it out as a preparation destined to supersede all other articles hitherto used for similar purposes.

*Each Tin is stamped on the lid with the words "FIELD'S OZOKERINE, REGISTERED."*

**Made only by J. C. & J. FIELD.**

SOLE AGENTS:

**CORBYN, STACEY & COMPANY,**

WHOLESALE AND EXPORT DRUGGISTS,

300 HIGH HOLBORN, LONDON.

# KEARSLEY'S WIDOW WELCH'S FEMALE PILLS.

*These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.*

## CAUTION.

The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for **Widow Welch's Female Pills** has been prepared by them for more than **Seventy Years!** Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY" in writing, also engraved on the Government Stamp, and each Box is wrapped in WHITE paper.

1,000 Handbills, with Name, and Two  
Tin Showcards,

Supplied with all Orders for 1 dozen (13) Boxes.

Price 27s. doz., subject to 10 per cent. for cash.

*Special Quotations to Shippers and for Large Quantities on application to*

**J. SANGER & SONS,**  
252 OXFORD STREET,  
LONDON, W.

# EPILEPTIC FITS.

## TAYLOR'S ANTI-EPILEPTIC MEDICINE.

### NOTICE TO CHEMISTS.

Epilepsy being considered incurable by most medical men, we would call your special attention to this medicine, which has proved a cure in many cases, and in none failed to give relief. If, therefore, you know any one in your town who suffers, and will kindly interest yourself in the matter,

**MESSRS. W. LAMBERT & CO.,**  
1a VERE STREET, LONDON, W.,

Will forward you a **SAMPLE BOTTLE FREE** to any London House; and your future recommendations, when you have proved its efficacy, will be esteemed. A few descriptive handbills can be sent with it, for your distribution, if desired.

# MARTIN'S SEWING MACHINE OIL,

*For Cleaning and Oiling Sewing Machines,*  
Prepared expressly for Sewing Machines.

It keeps them in good order and makes them work easy. Will last longer than any other Oil, and does not dry or corrode. A little of this upon the working parts will clear away the clogged oil and dirt caused by using common oils.

ALSO,

**LAMBERT'S BICYCLE OIL,**  
Equally useful for Bicycles and Light Machinery.

Both are sold in Bottles, 6d. each; wholesale, 4s.  
Subject to usual discount.

*Special Quotations to Shippers and Large Buyers.*  
**LAMBERT & CO., 1a Vere St., Oxford St., W.**

# DR. SCOTT'S BILIOUS & LIVER PILLS,

Which have been in use upwards of 70 years, are a medicine that can be safely recommended by all Medicine Vendors as a mild and effectual aperient for both sexes. They never cause griping. They are useful for all Bilious and Liver Complaints, Indigestion, Wind, Spasms, Foul Breath, Nervous Depression, Irritability, Lassitude, Loss of Appetite, Dyspepsia, Heartburn, Sour Eructations, Lowness of Spirits, &c.

*Handbills, with Name and Address, can be had, either for counter use or house to house distribution, on application to the Proprietors,*

**MESSRS. W. LAMBERT & CO.,**  
1a VERE STREET, LONDON, W.



# JUDSON'S

77 SOUTHWARK ST.,  
LONDON,  
OR OF  
Patent Medicine Vendors.

**ARTISTS' OR EBONY ENAMEL**  
*Elegant in combination with Gold Paint.* **BLACK 1s.**

For Decorative Purposes.  
For Renewing Ebonised Cases,  
Shop Fittings, Carriage Lamps,  
&c. Bottle & Brush, 8s. doz.  
each in a separate box.

**GOLD PAINT**  $\frac{1}{6}$  AND  $\frac{3}{6}$   
{ Equal to 4 at  $\frac{1}{6}$  }

Has intrinsic worth.  
One Bottle sells many.  
2 Bottles, Bowl and Brush,  
12s. and 28s. doz.

**SOLUBLE GLUE** 6d. AND 3d.

(Case.)  
EBONISED WOOD, with sliding Glass Top, surmounted by Framed Show Card, is supplied to the Trade at 12/- containing 3 dozen Capsuled Bottles.  
6d.,  $\frac{1}{2}$  doz. on Card, 4s. doz.  
3d., 1 doz. on Card, 2s. doz.

**GOLD AND SILVER INK** 6d.  
*For Writing Names in Photographic Albums.*

For Decorative Writing, or  
Complimentary Correspondence.  
The Ladies' Ink.  
1 doz. 4s.; 3 doz. Cases, 12s.

**BRONZONETTE** 1s.

For Bronzing a Fender in  
10 Minutes.  
Has great lustre and beauty!  
1 doz. box, 8s.

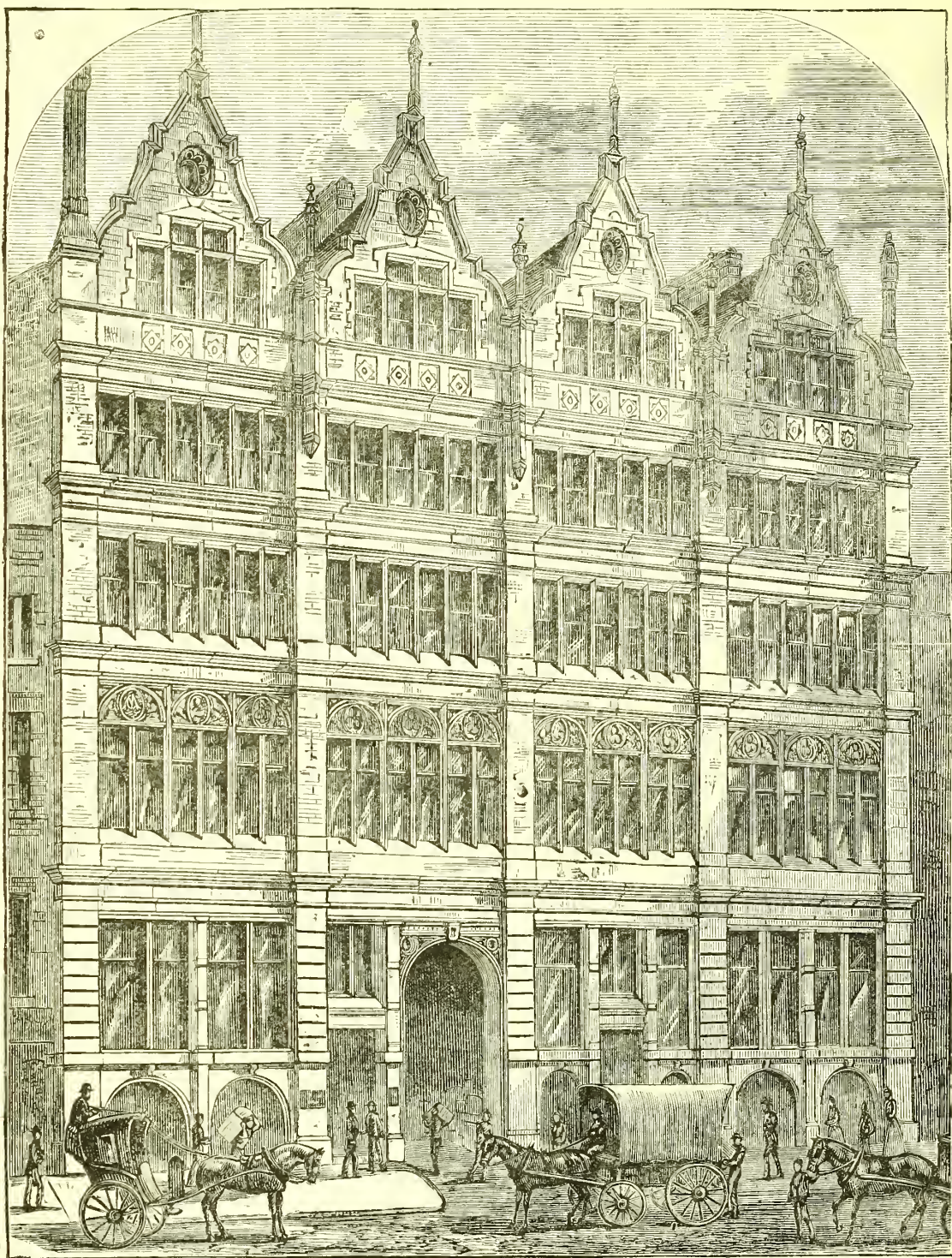
**GUM** 6d. 1s. 1d.  
*The Stickiest Sticker Extant*

Strong, Thick, Sweet.  
Brush, Capsule and Cap,  
4s. and 8s. Quarts, 16s.;  
Pints, 8s.; Half-Pints, 4s.;  
1d., 8s. per gross, in  $\frac{1}{2}$ -gross boxes.

**DYES** *Oldest and Best* 6d. only  
"LARGELY ADVERTISED."

14 in box, 4s.  
5 doz. Ebonised Case, 20s.,  
with framed Show Card  
and 1,000 Agency Bills.





NEW FRONTAGE TO THE PREMISES OF  
**S. MAW, SON & THOMPSON,**  
ALDERSGATE STREET, LONDON.



**S. MAW, SON & THOMPSON'S**  
**NEW**  
**SHOW ROOMS**  
**ARE NOW OPEN,**  
CONTAINING COMPLETE SAMPLES OF ALL KINDS OF  
**DRUGGISTS' SUNDRIES,**  
**SURGEONS' INSTRUMENTS, &c.**

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<i>SURGEONS' INSTRUMENTS, ETC.</i>	- - -	<i>GROUND FLOOR.</i>
<i>DRUGGISTS' SUNDRIES, ETC.</i>	- - -	<i>FIRST FLOOR.</i>
<i>SPONGE ROOM</i>	- - - - -	<i>THIRD FLOOR.</i>

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# ALLEN PEARCE & CO.,

DRUGGISTS' SUNDRYMEN,  
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*EXPORT MANUFACTURING PERFUMERS,*



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**Enlarged Price List, ready January 1, 1879, sent  
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*Proprietors of Pike's Fit Powders, Lillie's Preparations, Schweitzer's Dandelion  
Coffee and Cocoa, &c., Mrs. Allen's Neuralgic Mixture, &c.*

**FOREIGN AGENTS WANTED.**



# Condry's Fluid — SODA v. POTASH.

## A TRADE DIALOGUE.

SCENE: THE SHOP OF A CHEMIST.

SPEAKERS { The Chemist.  
A Partner in the late firm of Bollmann Condry & Co.

*Chemist.*—I see it is stated with much emphasis, in an advertisement, by one of the Partners in the late firm of Bollmann Condry & Co., that "**Condry's Fluid is not, and never was, composed of Permanganate of Potash.**" The article being patented the specification ought to determine that point; and you, having been also a Partner in the late firm, must of course be acquainted with its terms. How was the invention described?

*Partner.*—You are quite right. Not only was there a Patent, but the word "Patent" has always been put in the title on the labels, so that the correct name of the article is not Condry's Fluid, but "Condry's Patent Fluid." The Patent was for the use of Manganate and Permanganate of Potash or Soda as purifying and disinfecting agents.

*Chemist.*—The Patent, then, was for both the Potash and the Soda salts. It has been asserted that when the invention was put in operation, and Condry's Fluid brought out Permanganate of Soda alone was used.

*Partner.*—At that time, the Permanganates not being commercial products, it was necessary to begin by preparing the salt to be employed. Soda being much cheaper than Potash, and it being a matter of entire indifference, so far as the chemical efficacy was concerned, which was chosen, the preference was naturally given to Soda.

*Chemist.*—Potash, it seems to me, however, would produce a better article, because the Potash salt being crystallizable (whereas the Soda salt is not) yields a product of greater purity, permitting of uniformity in the strength of the solution. But cheapness, as you say, must have been the chief consideration, especially at the time when the Permanganates were looked upon somewhat as chemical curiosities.

*Partner.*—True. It would no doubt have been better to use the Potash salt, but its greater cost was considered an obstacle.

Anyhow, Soda was the base chosen. Crude Manganate of Soda was first made, and to it, in solution, Sulphuric Acid was added in quantity sufficient to convert the Manganate into Permanganate; Hydrated Oxide of Manganese was thrown down, and the supernatant liquor, consisting of solution of Permanganate of Soda and Glauber's Salt, was then bottled and sold as Condry's Fluid.

*Chemist.*—Quite so; that is what I suspected on having observed that many of the Bollmann bottles were partially filled with crystals of Glauber's Salt. If I am not mistaken, however, some compensating advantages have lately been claimed for the presence of this impurity; it has been said to impart antiseptic properties to the Fluid, but I should think that the effects of a drachm or two of Glauber's Salt in a pailful of dilute Permanganate solution must be quite infinitesimal.

*Partner.*—At all events, the superiority of the Potash salt was so obvious, that Chemists and Pharmacists, by common accord, seem to have taken it for granted that it had been preferred to the other substances mentioned in the patent; for you will find it stated in most works on Chemistry, Pharmacy, and Materia Medica that Condry's Fluid is a solution of Permanganate of Potash.

*Chemist.*—Yes; and, for my part, I cannot understand how any maker of Condry's Fluid can expect to enhance the reputation of his article by the avowal that it is prepared from a substance having the disadvantages I have pointed out.

*Partner.*—But it is asserted that Soda is a rare and expensive material compared with Potash, and no doubt that was once the case; but it was a very long time ago, and would take us back to the age of the "mineral chameleon."

*Chemist.*—For my part, I am quite satisfied with the present age, and mean to stick to the improved Potash preparation of the Condry's Fluid Company.

## THE CONDY'S FLUID CASE.—Condry v. Mitchell. FINAL DEFEAT of MR. H. BOLLMANN CONDY. FAILURE AND EXPOSURE OF THE "TRAP TO CATCH CHEMISTS."

(Précis of Report in "The Chemist and Druggist," December 15th, 1877.)

COURT OF APPEAL, LINCOLN'S INN, Nov. 27, 1877.

**LORD JUSTICE JAMES** (without needing to hear defendant's counsel) said—That such a suit should have been instituted at all was very remarkable; but that, after the learned Vice-Chancellor's judgment, this appeal should have been brought on was particularly strange. Dr. Mitchell had obtained his right by payment of a substantial money consideration, and CONDY'S FLUID AND CONDY'S OXONISED WATER WERE AS MUCH HIS PROPERTY AS THE PLAINTIFF'S. Having that right, Dr. Mitchell was entitled to set up the Condry's Fluid Company.

**LORD JUSTICE BAGGALLAY** was of the same opinion. The style of the partnership had been "Bollmann Condry & Co.," and the plaintiff set up in his own name of "H. Bollmann Condry." It was not necessary to consider whether he might have been restrained from so doing; but he came into court with a very bad grace. To get evidence he had resorted to what was, in fact, a TRAP TO CATCH CHEMISTS.

**LORD JUSTICE THESIGER** was also of that opinion; and especially as to the character of the plaintiff's evidence. A good deal of it seemed to him not admissible at all.

**LORD JUSTICE JAMES:** APPEAL DISMISSED WITH COSTS.

**NOTICE.**—Chemists ordering should specify **THE CONDY'S FLUID COMPANY'S** articles at **REDUCED TRADE PRICES**, which are listed by the principal Wholesale Houses. They are made in strict accordance with the Patent, are uniformly up to strength, free from sediment, securely corked, and always give satisfaction alike to consumer and to dealer. They are guaranteed by the original labels of the late Firm, with Prize Medals awarded at International Exhibitions, the unwarranted use of which is a misdemeanor, and the right to the use of which is confirmed to the Company by Decree.

**THE CONDY'S FLUID COMPANY, 7 FALCON STREET, LONDON, E.C.**

N.B.—Beware of mean and fraudulent Imitations of our Firm and Prize Medal Labels.

**ROBERT GIBSON,**  
**MEDICATED LOZENGE MANUFACTURER,**  
 CARLTON WORKS, HULME, MANCHESTER, AND 1 FINSBURY CIRCUS, LONDON,  
 MAKER BY STEAM POWER OF MEDICATED AND HIGH-CLASS LOZENGES OF EVERY KIND.  
*Boiled Sugars, of the Finest Quality, Packed for Home or Export.*  
**Fragrant Bouquet Lozenges, 100 in an Ounce, have an immense sale.**

## SUGAR WORM CAKES,

Keep in any Climate, give great satisfaction, and have an increasing demand, especially in Africa and Australia. Put up in Tins, each containing 6 Dozen or 12 Dozen Cakes.

*Price List, sent by post on application. Our Goods can be bought through any Wholesale House in London.*

# LINOLEUM & CORTICINE,

FOR SHOPS, HALLS, CONSULTING ROOMS, &c.

THICK MATERIAL AND ELEGANT DESIGNS. WARM, NOISELESS, AND INDESTRUCTIBLE.

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ROUND SHOULDER OR LIME JUICE BOTTLES.

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BEST KALI OR CONFECTIONERS' BOTTLES.

4 6 8 10 12 20 oz.

8/- 10/- 12/- 15/- 18/- 24/- gross.

BEST STOPPERED BOTTLES (all kinds),  $\frac{1}{2}$  oz. to 20 oz., 15s. to 60s. gross.

BEST QUALITY GREEN FLINT DISPENSING BOTTLES, Vial Lips, Flat or Oval, 3-oz. & 4-oz., 8s.;

6-oz. & 8-oz., 8s. 6d.; 10-oz. & 12-oz., 14s. per gross.

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### REDUCTION.

GLASS MEASURES, accurately marked,

painted bottoms.

1 2 4 6 8 10 12 16 20 40 oz.

4/6 5/6 8/- 9/6 11/- 13/- 14/6 16/- 18/- 24/- doz.

FEEDING BOTTLES. (If in large quantities.)

Best Green Glass, one dozen in a box, 29s. grs.

Best White " 30s. "

1s. Feeding Bottle, one in a box, with brush,

&c., complete, 50s. gross.

1s. Feeding Bottle, one in a box, with brush,

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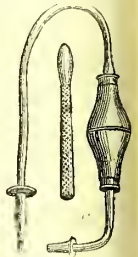
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&c., complete, 50s. gross.

1s. Feeding Bottle, one in a box, with brush,

&c., complete, 50s. gross.



HIGGINSON'S

E NEMAS.

Green, Red, or Black.

In sliding Cedar

Boxes, with Gum

Elastic Vagina Pipe,

27s. per doz.,

for an order of six

dozen or upwards.

**JONAS & JULES LANG, GLASS WORKS, ALSACE & LORRAINE.**

Showrooms—13 Charterhouse Buildings, Aldersgate Street, London, E.C., and 28 Rue Notre Dame de Nazareth, Paris.

## EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & Sons are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

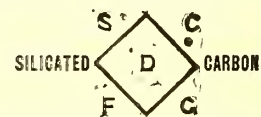
Adeps. Benz. B. P. and Pharm. Lard (*vide* P. J. Vol. I, No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,  
 5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

## SILICATED CARBON FILTERS.



Prize Medals—PARIS, 1867. HAVRE, 1869.

ADOPTED, IN PREFERENCE TO ALL OTHERS, by the Admiralty, and used in the General Post Office, the London and Provincial Hospitals, and many Public Establishments in various parts of the World.

**SILICATED CARBON FILTER COMPANY,**  
 CHURCH ROAD, BATTERSEA, LONDON.

INDEX TO ADVERTISEMENTS,

See pages 49, 50.



TO THE MEDICAL PROFESSION.

# MALTINE.

(EXTRACT OF MALTED BARLEY, WHEAT, AND OATS.)

This Preparation contains from Five to Ten times the beneficial and nutritive elements found in any alcoholic Extract of Malt.

**MALTINE** is a highly concentrated extract of malted *Barley*, malted *Wheat*, and malted *Oats*, containing, undiminished and unimpaired, all the nutritious principles that can be extracted from these cereals. By the most carefully conducted scientific process we are enabled to offer to the medical profession a perfect article, possessing *five to ten times* the beneficial and nutritive merit of any alcoholic or fermented Extract of Malt.

*In support of our claims we invite the attention of the Profession to the following points, viz.:*—

**FIRST:** In the manufacture of **MALTINE** the evaporation necessary to reduce it to its great density is conducted *in vacuo*, at a temperature ranging from 100° to 120° Fahr.; while many manufacturers of Extract of Malt resort to "open pan" or low pressure steam boiling. By neither of the latter processes can the extract be so produced as to preserve unimpaired the Diastase, Phosphates, and Albuminoids on which its remedial value so greatly depends; the products also are either of a dark colour or of low specific gravity, and possess little virtue aside from the saccharine matter which they contain.

**SECOND:** **MALTINE** being a non-alcoholic or unfermented malt extract, and prepared at a low temperature, it contains far more of the invaluable starch-converting Diastase than any alcoholic malt extract can possibly contain, while its concentrated condition prevents the Diastase from being spoilt by keeping. In **MALTINE** this innocuous but all powerful medicinal agent, Diastase, is thus placed at the disposal of medical practitioners and the public in its best possible condition.

**THIRD:** **ZIEMSEN** says, "During the last few years Malt Extract has almost entirely taken the place of Cod Liver Oil in the treatment of phthisis and other wasting diseases, at the Basle Hospital, and we have as yet found no reason for returning to the use of the latter remedy." The carbohydrates, or heat-producing materials in **MALTINE** will, alone, we believe, be found to be the perfect equivalent of Cod Liver Oil—to say nothing of the nourishing materials.

**FOURTH:** **LIEBIG** says, "Wheat and Oats stand first among our list of cereals in combining all the elements in proportions necessary to support animal life. They are especially rich in muscular and fat-producing elements." Hence our reason for using malted Wheat and malted Oats, while we use malted Barley in the manufacture of **MALTINE**, because it is comparatively rich in Diastase.

We believe that any practitioner will readily recognize the superiority of **MALTINE**, and the Manufacturers respectfully request a trial and comparison of merits with any article offered for similar uses.

## MALTINE AND ITS COMPOUNDS

Can undoubtedly be used with greater success than any other remedy now known in cases of General and Nervous Debility, Indigestion, Imperfect Nutrition, and Deficient Lactation; Pulmonary Affections, such as Phthisis, Coughs, Colds, Hoarseness, Irritation of the Mucous Membranes, and Difficult Expectoration; Cholera Infantum and Wasting Diseases of Children and Adults; Convalescence from Fevers, and whenever it is necessary to increase the vital forces and build up the system.

We Manufacture the following Preparations, the Formulas and Doses of which are printed on the Labels attached to each Bottle:—

**MALTINE:** In 16-oz. and 8-oz. Bottles, at 4s. 6d. and 3s. 6d.

**MALTINE Ferrated:** Do. 6s. 6d. and 3s. 6d.

This combination is specially indicated in Anæmia and Chlorosis, and in all cases of defective nutrition where Iron is deficient in the system.

**MALTINE with Alternatives:**

In this preparation **MALTINE** is combined with the most valuable Alternatives known, such as Iodides, Bromides, and Chlorides, and will fully meet the requirements of the practitioners in Syphilis, Scrofula, and all depraved conditions of the blood.

Each fluid ounce contains: *Chloride Calcium*, 10 grains; *Chloride Magnesium*, 10 grains; *Bromide Sodium*, 5 grains; *Iodide Potassium*, 1 grain; *Iodide Iron*,  $\frac{1}{2}$  grain. Dose.—One teaspoonful to one tablespoonful. In 16-oz. and 8-oz. Bottles, at 6s. 6d. and 3s. 6d.

**MALTINE with Beef and Iron:**

One of the most valuable combinations in cases of General Debility when there is deficient nutrition and a deficiency of Iron in the system.

In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE with Cod Liver Oil:**

The most perfect Emulsion, and most agreeable and effective mode of administering this nauseous but valuable Oil yet discovered. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE with Hypophosphites.**

This preparation is specially indicated in Phthisis, Rickets, and Deficient Ossification. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE with Pepsine and Pancreatine.**

One of the most effective combinations in Dyspepsia, Cholera Infantum, and all diseases resulting from imperfect nutrition. It contains three of the all-important digestive agents, Diastase being one of the constituents of the **MALTINE**. We believe there are few cases of Dyspepsia which will not readily yield to the medicinal properties of the above combination, while the system is invigorated by its nutritive qualities. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE with Phos. Iron, Quinia, and Strychnia.**

A powerful nutritive, general and nervous tonic. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE WINE.**

Dose.—From a dessert-spoonful to a table-spoonful. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE WINE with Pepsine and Pancreatine.**

Each fluid ounce contains: 15 grains *pure Pepsine*, and 15 grains *pure Pancreatine*. Dose.—From a dessert-spoonful to a table-spoonful. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTO-YERBINE.**

Each pint contains: 13 oz. *Maltine*; 2 oz. *Carrageen*; 1 oz. *Yerbine*. Dose.—From a dessert-spoonful to a table-spoonful three times a day, and at bedtime. In 16-oz. and 8-oz. Bottles, 6s. 6d. and 3s. 6d.

**MALTINE** preparations are all put up in amber bottles holding eight and sixteen fluid ounces each bottle enclosed in a folding paper box.

**THE MALTINE MANUFACTURING COMPANY, LIMITED,**  
**GREAT RUSSELL ST. BUILDINGS** (Corner of Gt. Russell and Charlotte Streets), **LONDON.**

# CLARKE'S WORLD-FAMED "BLOOD MIXTURE."

## COPY OF OFFICIAL CERTIFICATE,

ACCORDING TO THE LAST TRADES MARKS' ACT.

TRADE MARKS' REGISTRY OFFICE: LONDON, 4th May, 1878.

**FRANCIS JONATHAN CLARKE, Esq.**

SIR,—I have to inform you that, pursuant to Rule 21 under the Trade Marks' Registration Act, 1875, the Trade Marks applied for by you in application No. {3,270 and 3,272-3-4-5}, and duly advertised in No. 20 of the Trade Marks' Journal, have been registered in your name in class 3.—I am, sir, your obedient servant, **H. HEADER LACK, Registrar.**

Mem.—3,275 is the number of Mr. F. J. Clarke's Trade Mark, "BLOOD MIXTURE."

**IN CHANCERY.**

LORD CHANCELLOR.

VICE CHANCELLOR MALINS.

1873. C. No. 109.

Between **FRANCIS J. CLARKE, Plaintiff,**

AND

**GEORGE CLARKE, Defendant.**

### CAUTION.

**WHEREAS**, the Vice-Chancellor, Sir Richard Malins, on the 21st day of July, 1873, upon the application of Francis J. Clarke, of High Street, in the City of Lincoln, Chemist, the plaintiff in the above suit, awarded a perpetual Injunction, restraining the defendant, George Clarke, of Manchester, his servants and agents, from using the words "Blood Purifying Mixture," or any other imitation or colourable imitation of the *Plaintiff's Trade Mark*, "**BLOOD MIXTURE**," in or upon any bottles offered for sale by or for the defendant, or on any labels, handbills, or advertisements printed, used, or issued by or for the defendant, and from in any other way representing any medicine, compounded by or for him, to be "Blood Mixture," and from doing any act or thing to induce the belief that medicine compounded by or for the defendant, is "Blood Mixture," or a medicine compounded by the plaintiff.

And it was Ordered, that the defendant, at the request of the plaintiff, and in the presence of some person to be appointed by him for that purpose, destroy all wrappers, handbills, bottles, advertisements, and circulars in the defendant's possession, or under his control, containing the plaintiff's said trade mark, or any colourable imitation thereof.

**ALL PERSONS ARE THEREFORE CAUTIONED** against purchasing, selling, exposing for sale, or otherwise dealing in any medicine purporting to be "Blood Mixture," not compounded by the plaintiff, Francis J. Clarke, in bottles or wrappers, or with other accompaniments bearing facsimiles or fraudulent or colourable imitations of those invented and used by the plaintiff, the said Francis J. Clarke. Retail dealers, as well as manufacturers, are equally liable.

Dated this 28th day of July, 1873.

**H. K. HEBB, Plaintiff's Solicitor, LINCOLN.**

### CAUTION.—PUBLIC APOLOGY.

## CLARKE'S WORLD-FAMED BLOOD MIXTURE.

**I, CHARLES MONTAGUE CLARKE**, do hereby acknowledge that I, under the **SPURIOUS** title of Doctor of Medicine, have illegally infringed and pirated your Trade Mark, "**BLOOD MIXTURE**," and copied your advertisements, labels, handbills, and "Caution," with intent to deceive the public.

And I, **GEORGE HERBERT CLARKE**, of 130 SHOREDITCH, LONDON, do hereby acknowledge that I, under the title of Pharmaceutical Chemist, have prepared and sold for the said Charles Montague Clarke a certain compound called Blood Renovator.

Now we, the said Charles Montague Clarke and George Herbert Clarke, do hereby, in consideration of your consenting to offer no evidence against the said George Herbert Clarke on a **TRUE BILL FOUND AGAINST HIM**, under the Merchandise Marks Act, by the Grand Jury of the Middlesex Sessions, on the 6th day of October instant, undertake and agree to discontinue such practices, and to hand over to your Solicitor forthwith all wrappers, handbills, advertisements, circulars, and bottles containing the stuff, in our power or control, relating to the said *spurious compound* called "Blood Renovator," and we humbly apologise for having resorted to such practices,

**CHARLES MONTAGUE CLARKE.  
GEORGE HERBERT CLARKE.**

SIGNED by the said Charles Montague Clarke and George Herbert Clarke, on the 13th of October, 1874, in the presence of **HENRY BULL**, Clerk to Mr. J. SEYMOUR SALAMAN, 12 King Street, Cheapside, Solicitor to the Trade Mark Protection Society. To Mr. F. J. CLARKE, Lincoln, Proprietor of Clarke's World-Famed Blood Mixture.

**CAUTION.**—Mr. CLARKE will take immediate proceedings against all persons pirating his Trade Mark—"BLOOD MIXTURE" (fully protected under the Trade Marks' Registration Act of 1875), Labels, Wrappers, Bills, or Advertisements, or in any way infringing his rights.



# CHEMISTS & DRUGGISTS' TRADE ASSOCIATION OF GREAT BRITAIN.

AT the Second Annual General Meeting of the Members of the Association, held at the Inns of Court Hotel, Lincoln's Inn Fields, London, W.C., on May 14th, 1878, the following Resolution was passed:—

"That a special effort be made to raise at least £2,000 by Donations, to be used in protecting and furthering the legitimate interests of Chemists and Druggists."

The sum of £1,606 13s. 6d. has already been received or promised.

## PROVISIONAL LIST OF DONORS OF £1 AND UPWARDS.

£ s. d.	£ s. d.	£ s. d.
Liverpool Chemists (Wholesale and Retail) ... 102 0 0	Farnworth, William, King William St., Blackburn ... 2 2 0	Taylor, T. & F. G., Newport Pagnell ... 1 10 0
Nottingham Chemists ... 54 0 6	Fisher & Sons, 35 High St., Ramsgate ... 2 2 0	Tomlinson & Crowder, Barton-on-Humber ... 1 10 0
Hearon, Squire & Francis, 5 Coleman St., London, E.C. ... 50 0 0	Fitch, R. O., 235 Well St., South Hackney, London, E. ... 2 2 0	Whales, Thomas, 41 London Road, Southwark, Surrey ... 1 10 0
Bolton Chemists ... 37 6 0	Flint, John, Ranelagh Place, Liverpool ... 2 2 0	Atmore, George, Lynn ... 1 6 0
Liverpool Registered Chemists' Association ... 30 0 0	Fox, W., & Sons, 109 Bethnal Green Road, London, E. ... 2 2 0	Bates, W. J., 116 Mill St., Macclesfield ... 1 6 0
Sheffield Chemists' Association ... 15 0 0	Gabriel & Troke, 82 City Road, London, E.C. ... 2 2 0	Bourdas, Isaiah, Jun., 48 Belgrave Road, London ... 1 6 0
Barron, Squire & Co., Bush Lane, Cannon St., London, E.C. ... 11 11 0	Goodwin, John, Lower Clapton, London, E. ... 2 2 0	Durrant, G. R., Old Cross, Hertford ... 1 6 0
Langton, Edden, Hicks & Clark, 232 Upper Thames St., London, E.C. ... 10 10 0	Greenish, Thomas, 20 New St., Dorset Square, London ... 2 2 0	Gorton & Sons, 144 High St., Whitechapel, London ... 1 6 0
Meggison & Co., 147 Cannon St., London, E.C. ... 10 10 0	Haffenden, Thomas, 46 Dyke Road, Brighton ... 2 2 0	Hinds, James, 127 Gosford St., Coventry ... 1 6 0
Smith & Co., 132 Borough, London, S.E. ... 10 10 0	Henington, J., Lake St., Leighton Buzzard ... 2 2 0	Balance of Fund raised by Chemists and Druggists in the matter of the Dentists Act, 1878, per B. W. Westlake ... 1 5 0
Southall Bros. & Barclay, 17 Bull St., Birmingham ... 10 10 0	Hugo, J. E., 32 Adde St., Wood St., London, E.C. ... 2 2 0	Birkett, John, 16 The Crescent, Morecambe ... 1 5 0
Clarke, F. J., 214 High St., Lincoln ... 10 0 0	Humpage, Benjamin, Turnham Green, London ... 2 2 0	Brooks, W., 1 King David Lane, Shadwell, London ... 1 5 0
Eno, James C., Silverhowe, Champion Hill, London, S.E. ... 10 0 0	Keating, Thomas, 1 London House Yard, St. Paul's, London ... 2 2 0	Cory, J. H., High St., Newport, Isle of Wight ... 1 5 0
Freeman, Richard, 70 Kennington Park Road, Surrey ... 10 0 0	Lance, W. N. G., 207 Copenhagen St., Islington, London ... 2 2 0	Dalwood, J. H., Sherborne, Dorset ... 1 5 0
Midland Counties Chemists' Association, Birmingham ... 10 0 0	Laws, John, 111 Church St., Marylebone, London, N.W. ... 2 2 0	Elliott, Wm., 8 Poplar Terrace, Shepherd's Bush, London ... 1 5 0
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Cupiss, Francis, The Wilderness, Diss ... 7 7 0	McGuffie & Co., 21 Castle Street, Liverpool ... 2 2 0	Hampson, R., 205 St. John St. Road, London ... 1 5 0
Kerr, Charles, 56 Nethergate, Dundee ... 6 6 0	Pattison, George, 139 St. John St. Road, London, E.C. ... 2 2 0	Hay, E. J., 14 Bond St., Leeds ... 1 5 0
Bingley, John, 91 Bailiff St., Northampton ... 5 5 0	Pickering, A., 45 Lowgate, Hull ... 2 2 0	Hughes, A. E., Belgrave Terrace, Normanton Road, Derby ... 1 5 0
Hodgkinson, Prestons & King, 88 Leadenhall St., London ... 5 5 0	Randall & Son, 146 High St., Southampton ... 2 2 0	Jeffrey & Son, Pittville, Cheltenham ... 1 5 0
Howden, Robert, 78 Graeeshurch St., London, E.C. ... 5 5 0	Redfern, Tom, 50 King St., Penrith ... 2 2 0	Morgan, G. E., Shropshire St., Market Drayton ... 1 5 0
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Reynolds, Richard, 13 Briggate, Leeds ... 5 5 0	Tomlinson, Haywood & Bishop, Lincoln ... 2 2 0	Reinhardt & Sons, 76 Briggate, Leeds ... 1 5 0
Shepperley, George, Long Row, Nottingham ... 5 5 0	Campion, R., High St., Harlow ... 2 1 0	Salter, J. B., 34 Castle St., Shrewsbury ... 1 5 0
Abraham, John, 87 Bold St., Liverpool ... 5 0 0	Cliff, J., High St., Dorking ... 2 1 0	Seath, T. D., 26 Stodman St., Newark-on-Trent ... 1 5 0
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Brighton Chemists' Association ... 5 0 0	Smith, W. C., 22 King St. West, Hammersmith, London ... 2 1 0	Watterson, Wm., 78 Wandsworth Road, London, S.W. ... 1 5 0
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Newcome, John, 70 High St., Grantham ... 4 0 0	Hughes, S., High St., Stourbridge ... 2 0 0	Barron, W., 37 Winchcombe St., Cheltenham ... 1 1 0
James, Joseph, Promenade Place, Cheltenham ... 3 8 0	Ingall, J., Ashford, Kent ... 2 0 0	Baxter, G., 13 Foregate St., Chester ... 1 1 0
Dutton, J., King St., Rock Ferry, Cheshire ... 3 5 0	Jays, P., & Co., 6 Drapery, Northampton ... 2 0 0	Beckett, T. S., 67 Victoria Dock Rd., London ... 1 1 0
Anthony, J. L., High St., Bedford ... 3 3 0	Kent, Thomas, 226 Blackfriars Road, Surrey ... 2 0 0	Beuger, F., Baden, 7 Exchange St., Manchester ... 1 1 0
Chantler, R. P., Park Square, Luton, Beds. ... 3 3 0	Swan & Proctor, Newcastle-on-Tyne ... 2 0 0	Bird, G., Crouch End, London ... 1 1 0
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Drane, Robert, 8 Queen St., Cardiff ... 3 3 0	Whitfield, J., 113 Westborough, Scarborough ... 2 0 0	Bostock, W., Taunton Road, Ashton-under-Lyne ... 1 1 0
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Rowe, W. T., Penryn St., Redruth ... 2 16 0	Walpole, W., White Lion Opening, Gt. Yarmouth ... 1 12 0	Burgess, Willows & Francis, 161 High Holborn, London, W.C. ... 1 1 0
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Brookes, Samuel, 62 Lisson Grove, London, N.W. ... 2 7 0	Hardeman, John, 43 Bury New Road, Manchester ... 1 11 0	Chubb, J. C., 29 Old St., London, E.C. ... 1 1 0
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Hallam, F., 22 High Street, Burton-on-Trent	1 1 0	Thompson, Thomas, 269 High St., Sunderland	1 1 0	Harris, A. E., Liverpool Rd., Stoke-on-Trent	1 0 0						
Hammeton, Edward, 28 High St., Colchester	1 1 0	Thoms, J. W., 10 Commercial Place, Aberdeen	1 1 0	Hart, J., 130 Newport St., Bolton	1 0 0						
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Haydon, F. W., Fordingbridge	1 1 0	Tomlinson, C. K., Lincoln	1 1 0	Harris, W. C., 170 Westgate, Bradford	1 0 0						
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Hickman, W., Bridgwater	1 1 0	Underhill, Henry, 61 High St., Rishton	1 1 0	Hope, John, 91 Brook St., Chester	1 0 0						
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Hogwood, E., Plough Rd., Rotherhithe, Surrey	1 1 0	Vines & Froom, Aldersgate St., London	1 1 0	Hutty, John, Withersnace, Hull	1 0 0						
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Hough, W., Doncaster	1 1 0	White, George, 115 Hall St., Dudley	1 1 0	Johnson, F., Market Hill, Barnsley	1 0 0						
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Jackson, C., Church Road, Acton, London	1 1 0	Wiles, Edwin, 1 Mitchell St., Sheffield	1 1 0	Jones, J. H., High St., Denbigh	1 0 0						
Johnson, J. B., Balance St., Uttoxeter	1 1 0	Williamson, G., & Son, Union St., North Shields	1 1 0	Jones, Joseph, 60 Chester Road, Manchester	1 0 0						
Joint, R., Chumleigh	1 1 0	Wilkinson, W., Church Gate, Colne, Lancs.	1 1 0	Jones, E. H., 30 St. Augustine's Parade, Bristol	1 0 0						
Jones, W., Bull Ring, Birmingham	1 1 0	Williams, P., 21 West St., Horsham, Sussex	1 1 0	Johnson, T. S., Malvern	1 0 0						
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Lincolne, W., High St., Ely	1 1 0	Hickley, George, 101 Church St., Brighton	1 0 6	Mason, Charles, Bridgman St., Bolton	1 0 0						
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Lyon, R., Upper Brook St., Ipswich	1 1 0	Upton, E. J., St. Mary's Street, Wallingford	1 0 6	Nicklin, Samuel, 21 Owen St., Tipton	1 0 0						
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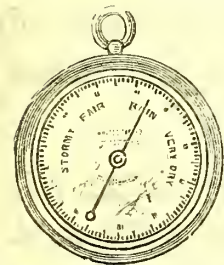
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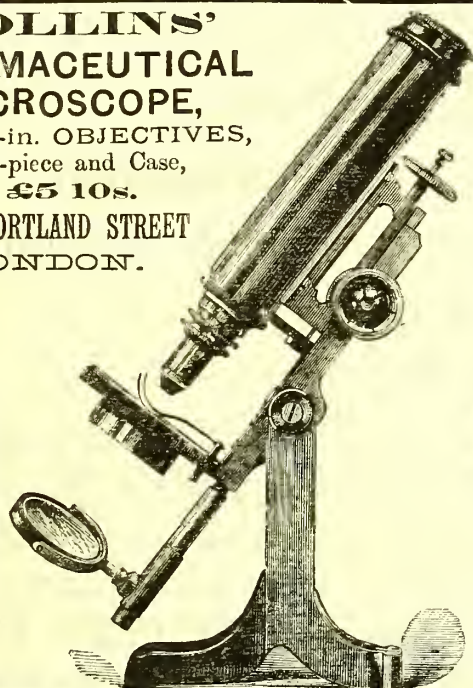


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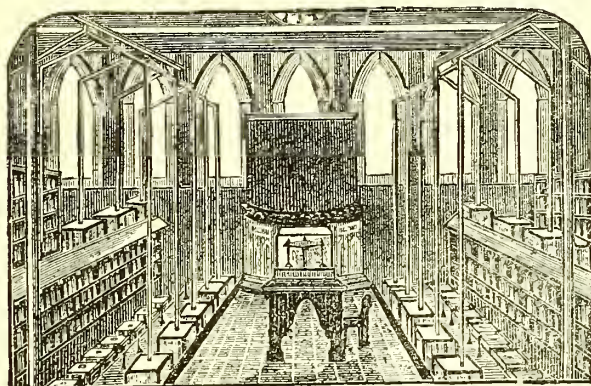
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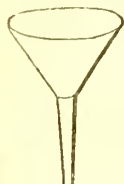
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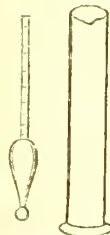
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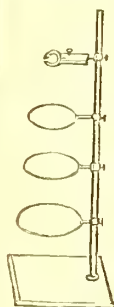
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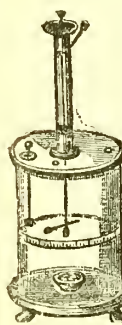
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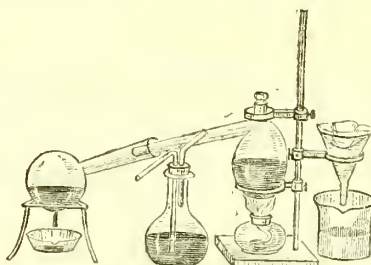
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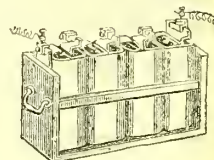
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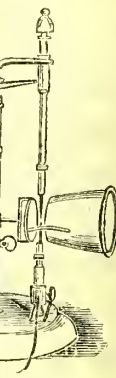
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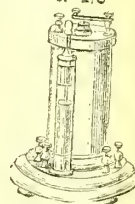
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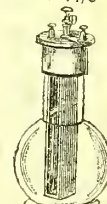
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February 19, 20, 21, 1879.

14 Major Candidates examined, 2 failed, the following 12 passed.  
68 Minor Candidates examined, 28 failed, the following 40 passed.

### FROM THE WESTMINSTER COLLEGE Alone.

#### MAJORS.

5 Students presented themselves, all passed.

Gravill, Edward Day  
Harpham, John  
Jackson, Joseph John  
Palmer, Chas. Edward  
Smith, James William

#### MINORS.

24 Students presented themselves, 20 passed, 4 failed.

Adams, Benjamin  
Bence, Frederick Hubert  
Botwood, Charles Walker  
Brunt, Edwin  
Brunt, George Henry  
Compigné, Eugène  
Cory, Francis Albert  
Hibbs, Robert Darton  
Hamilton, Edmund Harry  
Jobson, George William  
Kelly, Francis Charles  
Laxon, Matthew  
Lyle, William  
Mann, George Frederick  
Mann, Samuel William  
Mitson, Fletcher  
Stone, Samuel  
Williams, Thomas Roberts  
Williamson, William  
Vimpeny, John McMillan

Total 20.

\* The following Students also passed from the Westminster College:—  
PRELIMINARY.

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### APOTHECARIES' HALL,

Messrs. Bence, Laxon, Williamson.

### MINOR, EDINBURGH,

Mr. John Allen.

### FROM ALL OTHER SCHOOLS TOGETHER, Private and Public.

#### MAJORS.

9 Students presented themselves, 7 passed.

Goodall, Wm. Anthony  
Minshall, Rose Combes  
Pain, Edwin  
Pocock, Wm. Fredk. Henry  
Smith, Joseph  
Stacey, Peter  
Stuart, Charles Edward

#### MINORS.

44 Students presented themselves, 20 passed, 24 failed.

Arnfield, John Cash  
Brandma, Dirk Gerhard  
Cherrington, Geo. Widdowson  
Dowdeswell, Jonathan  
Everett, Wm. John Hugo  
Francis, Frederick Charles  
Frost, Frederick Philip  
Hartley, John  
Howard, George William  
Howse, Charles Turk  
Knight, Ramsey  
Lawton, John Dyson  
Lomax, Allan Edward  
McCordle, Thomas  
Padley, William  
Pisani, Orestes V.  
Phillips, Alfred James  
Sims, George Samuel  
Wakefield, John  
Weary, China Thomas

Total 20.

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**T**HE Proprietor of a Country Business would be glad to meet with a Middle-aged Chemist having an income, yet desiring some employment, say 3 days a week; the Advertiser would not be disinclined to treat with the owner of a Proprietary Article, which might be worked with the Business. Address, J. L., Barclay & Sons, 95 Farringdon Street, London.

**ASSISTANT**, for China; \$1,200 to \$1,560 a year; communicate by letter only, stating antecedents from apprenticeship to date, to W. R. D., care of Johnson & Sons, Cross Street, Finsbury; none but really first-rate men need apply; selection will be made on 30th inst., but enquiries will be answered at once.

**WANTED**, a Trustworthy Assistant (outdoor), about 20 or 22 years of age, who would be willing to help in the wholesale and take charge of retail during the absence of principal; hours from 8 to 8, no Sunday work; must have good references. Apply, stating salary required, to F. W. Wilby, Chemist, 164 Belgrave Gate, Leicester.

## ASSISTANTS WANTING SITUATIONS.

*Assistants Wanting Situations have the liberty of inserting advertisements of 12 words for 1s.; every additional 3, 4, or 6 words, 6d., payable in advance.*

*Please note that replies to Advertisements ordered to be addressed to Post Offices are liable to be forwarded to the Dead-Letter Office.*

**AS JUNIOR**, in or near London; aged 22; good reference. R. B., 67 Victoria Dock Road, E.

**AS MANAGER**, outdoor Assistant, or Dispenser; highest references W. Provost, Peterborough.

**ASSISTANT**, or to manage a branch; part grocery not objected. B., 4 Queen Street, Plymouth.

**AS ASSISTANT**; temporary or permanent; aged 27; 12 years' experience. F. B. Theobald, 20 Park Street, Cambridge.

**TEMPORARY ASSISTANT**; wanted on April 7, a gentleman to Superintend a Retail Business for eight or ten days. Address "Chemist," care of Mr. W. Swulinski, 4 Thompson Street, Workington.

**MR. H. SEYMOUR**, Sevier Street, Ashley Hill, Bristol, **TEMPORARY MANAGER**, by day, week, or month, is now disengaged. Terms on application.

**WANTED**, a Situation as Assistant, with a view to Partnership or succession. Address, "Delta 25," Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

**ASSISTANT** in Good Country Business, with view to ultimate succession; outdoor preferred; age 26; minor qualification. Address, stating hours and salary, to S. M., 1 Magdalen Street, Norwich.

**THE ADVERTISER** (Chemist by Examination), who has had many years' experience in the Homoeopathic Trade, seeks an Engagement as Manager, or to open a Branch or Agency abroad; highest references. Apply, "Libra," 50 North Street, Clapham, S.W.

## MISCELLANEOUS.

**CHEAP**.—A CHEMIST'S WATCH, 45s.; Solid Aluminum Gold, equal in appearance and timekeeping to an £8 gold watch (from which it is quite indistinguishable in appearance), beautifully engraved or engine turned, with shield and garter, superior movements, and a good time-keeper. Send for particulars to B. Young, 24 Urney Street, Belfast.

## SAINT PANCRAS, MIDDLESEX.

**THE Guardians of the Poor of this Parish** are prepared to receive PROPOSALS FOR THE SUPPLY OF DRUGS. Tenders (forms of which may be had on application, and on which only proposals will be received) must be delivered to me, sealed and properly endorsed, before 10 A.M. on Thursday, the 20th March; and persons tendering, or their agents, are expected to be in attendance at the Vestry Hall, Pancras Road, N.W., at 3 P.M. on that day, but no travelling or other expenses will be allowed. The Guardians do not bind themselves to accept any Tender.

By order,  
DANIEL FILDEW,  
Clerk to the Guardians.  
Guardians' Offices, Vestry Hall,  
Pancras Road, N.W., 27th February, 1879.

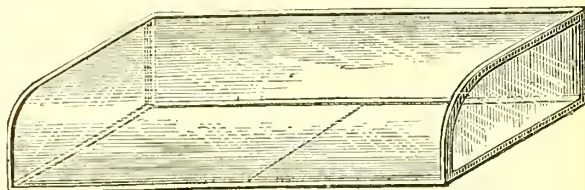
## E. NATALI,

SHOP FITTER AND GLASS SHOW CASE  
MANUFACTURER,

207 OLD STREET (Opposite Great Eastern Street), CITY ROAD,  
LONDON, E.C.

## WORKS—HOXTON.

CIRCULAR-FRONT GLASS COUNTER CASES.  
LOOKING GLASS BACKS.



## BENT PLATE GLASS COUNTER CASES,

Glass Ends, Spring Fastenings, Looking Glass Backs,  
Velvet Lined.

### MAHOGANY, PLAIN OR EBONIZED.

Long	Wide	Deep	£	s.	d.	Long	Wide	Deep	£	s.	d.
30	17	8	2	5	0	48	20	8	4	10	0
36	17	8	2	14	0	60	20	8	6	5	0
36	20	8	3	3	0	72	20	8	7	10	0

Flat Plate Glass Cases, 20 in. wide, 21s. per foot run.

Looking Glass, Carboys, Specie Jars, Desks, and Chemists' Fittings and Utensils in Stock, Bought, or Exchanged.

Cases and Fittings to any Design. Estimates free.

SHOPS NEWLY FITTED COMPLETE FROM £70.

# NOTICE TO ADVERTISERS.

In consequence of Easter Monday falling on April 14, the Publisher begs to announce that the Office of THE CHEMIST AND DRUGGIST will be closed on that day, and that Advertisements for the April issue cannot be received later than Saturday, April 12.

*Office, 44a Cannon Street, E.C.*



# "GOLDEN Trade Mark. ★ Registered. STAR" BAY LEAF WATER.

The Only True and Genuine. Unrivalled in Richness and Delicacy.

*Put up in an Attractive Form, and commands a Ready Sale.*

The above quality has never before been offered in the English market. Its immense sale has heretofore been confined to America and West Indies. It is offered with the positive assurance that it is unequalled, and a successful rival with all other fine Toilet Waters.

SUPPLIED BY ALL WHOLESALE DEALERS.

Distillers' Agency: 114 and 116 Southampton Row, LONDON, England.



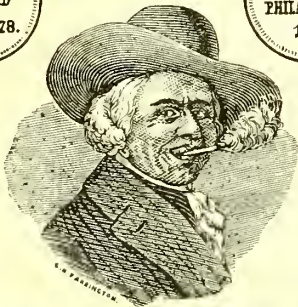
## "PERFECTION" MRS. S. A. ALLEN'S World's Hair Restorer

Never fails to restore Grey Hair to its youthful colour, imparting to it new life, growth, and lustrous beauty. Its action is certain and thorough, quickly banishing greyness. It is not a Dye. It ever proves itself the natural strengthener of the Hair. Its Superiority and Excellence are established.

The GENUINE only in PINK WRAPPERS Sold by all Chemists & Perfumers

Principal Depot: 114 & 116 Southampton Row, LONDON, England.

### SMOKE



## "Richmond Gem" CIGARETTES, AND SMOKING TOBACCOS.

since the first introduction of our goods in Great Britain, and our experience of their business transactions hitherto gives us perfect confidence that their appointment will be attended with the most satisfactory results, both to you and us, in the future. Thanking you for your liberal patronage in the past, and respectfully soliciting its continuance, we remain, your obedient servants,

J. F. ALLEN & CO.'S TOBACCOS and CIGARETTES (the Name and Trade Mark upon every Package) are sold by all first-class Establishments throughout the UNITED KINGDOM, INDIA, and the COLONIES.

Messrs. TREACHER & CO., Limited, Agents for Bombay, Byculla, and Poona; Messrs. WATSON & SUMMERS, Agents for Calcutta; Messrs. OAKES & CO., Agents for Madras; Messrs. DREYFUS & CO., Port Elizabeth; Mr. THEODOR DREYFUS, King William's Town, Wholesale Agents for the Cape Colony.

Sole Consignees: H. K. TERRY & CO., Great Russell Street, London.

EXPORT PRICE LIST FORWARDED TO THE TRADE UPON REQUEST.

## CIGARETTE SMOKERS

—may we say of both sexes—should ask for "Allen's." "It is no figure of speech to say" that the daintily-made rolls contain less paper than tobacco, and that the latter is pure and unadulterated American. Whether the smoker indulges in "The Richmond Gem," with or without mouth-pieces—the latter for choice—"The Pet" Cigarettes, or "Napoleon's" genuine Perique, his experience will be entirely satisfactory. The Tobacco is of the most exquisite quality. In fine, both as regards flavour and construction, Messrs. J. F. Allen & Co.'s Cigarettes thoroughly deserve recommendation. All Tobacconists supply them.—Vide *The Illustrated Sporting and Dramatic News*, June 15, 1878.

## TO PIPE SMOKERS.

A CORRESPONDENT writes:—"The 'RICHMOND GEM MIXTURE' is delicious and remarkably well compounded; this Mixture should only be smoked indoors, it is far too good to be wasted 'on the desert air'."

"The 'RICHMOND GEM CURLY CUT' is also excellent, and it is difficult to choose between this and the above, but I think the turn is just in favour of the 'Mixture'; this is also almost too delicate a flavour for out-of-door use to enjoy it as one ought."

"The 'IMPERIAL BIRD'S EYE' is a pleasant, clean-smoking, fragrant Tobacco, capital for Yachting, Fishing, Shooting, or in fact any other out-of-door use."

"I observe one thing with all these Tobaccos, they do not cake, or go hard in the pipe, however tightly filled, and they burn to the very last grain; nor do they clog the pipe as other Tobaccos do, requiring frequent scraping; the absence of Nitre, besides saving the burning of the tongue and parching the throat, so usual with other Tobaccos, affords the luxury of a dry pipe to the last, there is no 'wobbling' to be heard a yard off."

## TO EXPORTERS OF TOBACCO.

Richmond, Virginia, July 1, 1878.

"We beg to inform you that we have appointed Messrs. HENRY K. TERRY & Co. Sole Agents for Great Britain for the sale of our Tobaccos and Cigarettes. We have also given them the entire charge of our London Export and Shipping Trade, and take leave to refer you to them for quotations. Messrs. H. K. TERRY & Co. have been acting as our Agents since the first introduction of our goods in Great Britain, and our experience of their business transactions hitherto gives us perfect confidence that their appointment will be attended with the most satisfactory results, both to you and us, in the future. Thanking you for your liberal patronage in the past, and respectfully soliciting its continuance, we remain, your obedient servants,"

"J. F. ALLEN & CO."

# FERRIS & COMPY.'S PURE THYMOL SOAP,

PREPARED FROM

## THYMOL, THE NEW ANTISEPTIC AND DISINFECTANT.

**THYMOL**, a newly-discovered Crystal prepared from Wild Thyme (*Origanum Vulgare*), is pronounced by some of the most eminent Chemists and Physicians in Europe to be far superior to, and stronger than, Carbolic Acid, Coal Tar, or any other of the Antiseptics and Disinfectants hitherto known. It has been shown by the experiments of LEWIN and BUCHOLTZ to be about eight times as powerful as Carbolic Acid.

It has also the very great advantage of being **QUITE HARMLESS**, and possesses the **DELICIOUS** and **FRAGRANT ODOUR** of **WILD THYME**.

## FERRIS & COMPY.'S PURE THYMOL SOAP,

Manufactured by them with their Pure Crystals of Thymol, is confidently recommended as one of the very best and most elegant Soaps ever introduced to the Public.

It is adapted for the **TOILET** as a **SKIN SOAP**, as an **ANTISEPTIC SOAP**, and **FOR GENERAL FAMILY USE**.

An easy test of its effectiveness is, that it at once and completely removes the odour of Tobacco Smoke.

*See that each Cake bears our registered Trade Mark.*

Sold in Tablets, 6d.; or in Boxes, containing 3 large Tablets, 1s. 6d. per Box.

SOLE MANUFACTURERS—

## FERRIS, BOORNE, TOWNSEND & BOUCHER,

Wholesale and Export Druggists and  
Chemists to the QUEEN,

## BRISTOL,

And may be procured through all  
Chemists.

LONDON AGENTS—Messrs. LYNCH & Co., 171A Aldersgate Street, E.C.; Messrs. WM. EDWARDS & SON,  
157 Queen Victoria Street, E.C.

# F. A. SARG'S SON & CO.'S CHEMICALLY PURE GLYCERINES AND TOILET GLYCERINE ARTICLES.

## CHEMICALLY PURE GLYCERINES.

**Sarg's Double Distilled Glycerine, Chemically Pure,**

40° Beaumé, in Cases of Four 56-lb. Tins each; Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 ½-lb. Bottles, with Registered Label.

**Sarg's Double Distilled Glycerine, Chemically Pure,**

1-lb. and ½-lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandruff and the roughness of the scalp they are so commonly subject to.

**Sarg's Distilled Glycerine, Chemically Pure, P.B.,**

29° Beaumé, in Cases of Four 56-lb. Tins each.

**Crude Glycerine, in Bulk.**

## TOILET GLYCERINE ARTICLES.

**Transparent Glycerine Soap,**

in registered Packets of three Tablets, 1s. Warranted to contain 33% of the purest Glycerine. Also in round Tablets, three in a Box; and in oval Tablets in paper.

**Liquid Glycerine Soap,**

best preventive against chapped hands, 1s., and unrivalled for imparting softness to them, and rendering them clean and white. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

**Scented Glycerine,**

In Bottles at various prices. Either pure or diluted with water, this Glycerine is very successfully used for softening the skin, preserving the complexion, and preventing the very unpleasant roughness of the skin in cold weather.

**Glycerine Cream**

Is quite unequalled for imparting a fresh and healthy colour to the lips and keeping them from chapping.

**Sarg's new Carbolic Glycerine Soap,**

In Boxes of three Tablets, is highly recommended as a most effective disinfectant.

*Sold by all Wholesale Chemists and Druggists.*

*Sole Wholesale Agents for the United Kingdom:*

**SCHMEDES, ERBSLOH & CO. (IMPORTERS OF CHEMICALS AND DRUGS), 6 CASTLE STREET, FALCON SQUARE, LONDON, E.C.; AND MELBOURNE, AUSTRALIA.**



# G. F. SNOOK & SON,

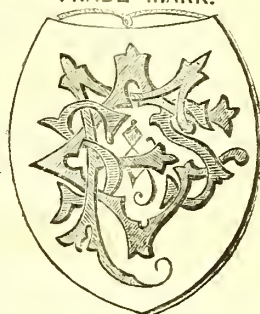
TRADE MARK.



1d.

Wholesale & Export Manufacturers  
of Druggists' Sundries, &c.,  
**376 CITY ROAD, LONDON, E.C.**

TRADE MARK.



$\frac{1}{4}$  lb

## SPECIALITIES—

Arnicated and White Felt Corn and Bunion Plasters. Felt, Hare-skin, and Chamois and Flannel Chest Protectors. Turkish, Toilet, and Bath Gloves. Sponge Gloves. Bath Straps, &c. Breast Exhausters. Respirators. Higginson's Enemas. Eye Shades. Calico, Flannel, and Linen Roller Bandages. Violet Powder, Fuller's Earth, &c., &c.

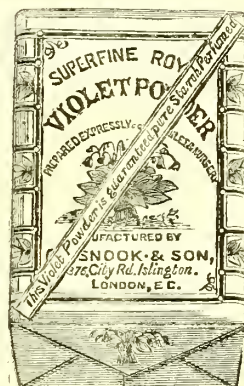
Snook & Son's 1d. Pure Starch Violet Powder, each packet with guarantee, Half-gross in neat Show Box for the Counter, as per Illustration, 5s. per gross. Also in  $\frac{1}{4}$  lb. and  $\frac{1}{2}$  lb. packets. Pure Starch, richly perfumed, in handsome wrappers, each packet with guarantee. One dozen in a Glass Top Box,  $\frac{1}{4}$  lb. 30s.,  $\frac{1}{2}$  lb. 60s. per gross.

Snook & Son's 1d. Pure Fuller's Earth, each packet with guarantee, in same style as the Violet Powder, price 4s. 3d. per gross.

Snook & Son's 3d. & 6d. Fuller's Earth, in Round Fancy Gold Boxes, one dozen in a box, 3d., 18s. per gross; 6d., 36s. per gross.

G. F. SNOOK & SON beg to say they Manufacture solely for Wholesale and Exportation. Any of the above goods may be had of all Wholesale Houses.

*G. F. S. & S. will be pleased to forward Sample and Price List free by post on receipt of business card.*



## ASHTON & KINDER,

SUCCESSORS TO ERNEST RAYMOND & CO.,  
Chemical and General Drug Merchants, and

# ANILINE DYE

MANUFACTURERS,  
52 DALE ST., PICCADILLY, MANCHESTER.  
WORKS, ROMILEY, CHESHIRE.

MAGENTA—Blue and Red shades.  
BLUE—Dark and Light shades.  
GREEN—Blue and Yellow shades.  
VIOLET—Blue and Red shades.  
PACHA RED.

AND ALL OTHER COLOURS.


ALSO COLOURS FOR HOUSEHOLD USE, PARTICULARLY SUITABLE FOR SALE BY CHEMISTS & DRUGGISTS.

SPECIAL COLOURS for PAPER MAKERS.  
SPECIAL COLOURS for LEATHER and  
SKIN MAT MANUFACTURERS.  
ULTRAMARINE.  
MIRBANE.  
ESSENCE of MIRBANE, for CHEMISTS,  
CONFECTIONERS, &c.

*Export Orders and Quantities on Special Terms. Samples and Price Lists on application.*



**PHOENIX** ESTABLISHED A.D. 1815 **MARKING INK**  
**GENUINE INDELIBLE**  
 THE LEADING & **STANDARD ARTICLE**  
 PREPARED ONLY BY THE WIDOW OF THE LATE  
**JOHN MURPHY**  
 CHEMIST AT THE ORIGINAL ESTABLISHMENT  
 11, NILE STREET, EAST ROAD, HOXTON, N.  
**NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.**



**H. ERHARDT & CO., 9 BOND COURT, WALBROOK, LONDON, E.C.,**  
*Manufacturers of Parchment, Skins, White Splits, { For Tying over Jars and Capping Bottles.*

*Vegetable Parchment*

*Tinfoil & Tinfoil Paper*

Also Agents for **CHEMICALLY PURE TINFOIL**, as thin as 90 square feet to the lb.  
**MIXED & LEAD FOIL & FOIL PAPER. COLOURED CAPPING & FANCY PAPERS.**  
*Samples and Prices post free on application.*

**COPYRIGHT—ORIGINAL—AND ONLY GENUINE**  
**WHITAKER & GROSSMITH'S**  
**PURE WHITE GLYCERINE SOAP.**

*Richly perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which GLYCERINE is so justly famed.*

**NECESSARY CAUTION.**—This unrivalled *Toilet Soap* was originated by us in 1863, and solely by its superior merit and moderate price has now attained the patronage of a wide circle of all classes of society. As many (external) imitations of our saleable article are often falsely offered as the *real Soap*, all vendors should please note that the Box and Wrappers now bear our "Trade Mark," and not be misled by inferior counterfeits, thereby causing disappointment to purchasers, and consequent injury to the sale of the original and genuine Soap.

**1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.**

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,  
**WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore Street, City, London.**

**FOULKES' CEMENT.**  
**AS USED AT ALL THE GOVERNMENT MUSEUMS.**

Suited for any substance, from glass and china to leather, wood, or iron, and the articles joined bear washing in boiling water.

The large range of materials to which this cement is applicable, its transparency, strength, and facility in use, and the readiness with which it adheres, renders it, without doubt, **THE MOST USEFUL EVER INVENTED.** It is equally applicable to articles of the coarsest or the most delicate construction. The great success which attended its introduction, now more than 20 years ago, has given rise to a host of imitations, under as many various titles, some of these being of an exceedingly crude character, and most unsatisfactory to both vendor and buyer. The above celebrated Cement is uniformly prepared and neatly put on, and is guaranteed to remain unchanged in any climate.

Professor ARCHER, C.B., F.R.S., &c., Edinburgh.—"I can testify most unhesitatingly to its great utility in the various occasions which continually arise in Museum work for a first-rate Cement. I have invariably found yours superior to all others, and have extensively recommended its use to all my friends."

**Sold in bottles at 1s. and upwards; sample bottles, 6d.**

**FOULKES' TOILET & NURSERY POWDER.**

**IMPALPABLE AND DELICATELY PERFUMED.**

This unique Powder possesses the emollient properties of fullers' earth, free from colour, and in a high condition of purity.

Sold in boxes at 1s. and 6d. Wholesale at the Patent Medicine Houses and Druggists' Sundries Men, or from

**W. J. FOULKES, Operative Chemist, Birkenhead.**



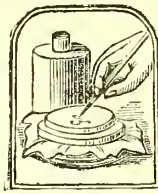


# GREAT REDUCTION OF PRICES.

6d. and 1s. PEDESTALS, Glass Cases included.

20 per cent. off £100 Orders.

10 " " " £50 "



**CAUTION**

I AM DETERMINED TO PREVENT IN ALL CASES EVERY COLOURABLE IMITATION, TO PROTECT MY RIGHTS & PROPERTY

WRIT OF INJUNCTION GRANTED NOV. 28, 1877.

COMMON PLEAS DIVISION,  
JAN. 15.

(Sittings before Lord Coleridge and  
Justices Grove and Denman.)

HICKISSON v. ASHTON.

Defendant moved for a NEW  
TRIAL.

Application REFUSED.

This action, which was brought for  
the alleged infringement of the Plain-  
tiff's Trade Mark, was tried at the last  
sittings at Guildhall, before Mr. Baron  
Cleasby, when the verdict was for the  
Plaintiff with damages.

The PLAINTIFF was the HUS-  
BAND of the DAUGHTER of the late  
JOHN BOND, the PROPRIETOR  
of BOND'S CRYSTAL PALACE  
MARKING INK. The Defendant  
was a Druggist, and he had sold a  
Marking Ink manufactured by a Mr.  
Murphy, and the Plaintiff complained  
that the Labels on Murphy's Ink were  
an infringement on his Labels. A  
TRADE MARK is not only a SYM-  
BOL or CHARACTER, but the general  
appearance of a label, whereby  
the public would be deceived.  
Their Lordships this morning, after  
consulting Mr. Baron Cleasby on the  
matter, refused the rule, that learned  
Judge having expressed his satisfaction  
with the verdict.—RULE REFUSED.  
Vide daily papers.

## ANOTHER GOLD MEDAL AWARDED,

PARIS ACADEMIE,

For Merit and Superiority of Finish, 2nd Award.

PRIZE MEDAL, PARIS, 1878, 2ND AWARD.

3 Gold and several Silver and Bronze Medals.  
Hon. Mention, Paris, 1878.

PRIZE MEDAL AND GRAND DIPLOMA,  
8 Medals.] PHILADELPHIA EXHIBITION, 1876. [7 Diplomas.

PURVEYOR TO THE LORDS COMMISSIONERS OF THE ADMIRALTY.

**CAUTION.**—The only GOLD Medal Marking Ink. Gold  
and Silver Medals and Diploma, Silver Medal and Diploma, Lon-  
don. Prize Medal, Lyons. Certificate of Merit, signed Albert  
Edward, Prince of Wales; and Dublin Diploma, Marking Ink  
Maker under Royal Warrant to Her Majesty the Queen and  
Court of Holland.

**GOLD MEDAL, SOUTH AFRICA, 1877.**

HONOURABLE MENTION and ESPECIAL NOTICE from  
the FRENCH PRESIDENT and H.R.H. the PRINCE OF  
WALES, Paris Exhibition, 1878.

HONOURABLE MENTION and DIPLOMA awarded by the  
JURORS, 1878.

SECOND GOLD MEDAL awarded by the PARIS ACADEMY,  
1878, for Merit and Superiority of Production.

J. HICKISSON, Proprietor of the Daughter of the late John Bond's  
Crystal Palace Marking Ink, 75 Southgate Road, London,

BOND'S MARKING INK.

**CAUTION** to Wholesale  
and Retail Vendors.—TAKE  
NOTICE that on Nov. 26th,  
1877, IN AN ACTION  
"HICKISSON & ANO-  
THER against MURPHY"  
JUDGMENT was given  
for PLAINTIFFS, WITH  
DAMAGES AND COSTS,  
AND A PERPETUAL IN-  
JUNCTION GRANTED  
RESTRAINING the said  
MRS. MURPHY and her  
AGENTS FROM USING  
the word "BOND" upon  
any labels or pedestals  
manufactured by or for her,  
OR FROM IN ANY WAY  
REPRESENTING THE  
INK MANUFACTURED  
BY HER TO BE BOND'S  
MARKING INK.

GRANTED NOV. 28, 1877.

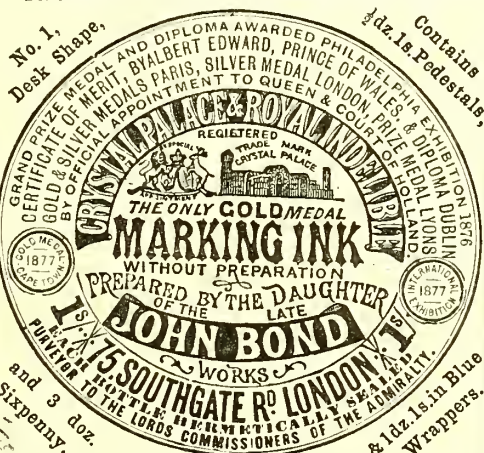
WRIT OF INJUNCTION

6d. Bottles in Round Blue Cases (Grand Show Card enclosed with each Packet of one dozen) ... 30s.

1s. Do. do. do. (Handsome Show Card enclosed with each dozen) ... 60s.

6d. Round Blue Wrapper upon Show Card of one dozen ... 30s.

FACSIMILE OF THE GENUINE LABEL.



Blue Wrappers. Black and White Oval Label.

No. 2 CASE, containing 3 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, Black and White Oval Label, old style. 16s. each.

No. 3 CASE, containing 1 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, old style, and 2 doz. 6d., do. do. 11s. each.

No. 4 CASE, containing 3 doz. 6d., Crystal Palace and Royal Indelible, Blue Wrappers, Black and White Oval Label, old style. 8s. 6d. each.

DEAR HICKISSON, —  
Send on receipt the £200  
order, as we are much increas-  
ing our trade by pushing your  
Ink in place of useless  
Novelties, as some other  
Wholesale Houses are send-  
ing other Makers', and there-  
by the Retail are closing  
their accounts. The 50 No. 1  
Glass Cases are sold. Repeat  
order immediate.—Yours,  
BROWN & CO.

29/4/78.

No Heating Required  
if allowed to remain  
three hours previous to  
Washing.

Where  
are the Thousand  
and One would-be Makers  
that have expended and  
entirely lost large sums in trying  
to oppose this old-established preparation?  
Chemists, return all others forced  
upon you, and do not offend  
a Customer by sending  
a would-be  
substitute.

Have you seen the New  
Black and Gold Glass Cases  
with Hinged Black and Gold  
Framed Linen Specimen of the  
Crystal Palace with elaborate  
GOLD Mounts?

**CAUTION** I WILL PROSECUTE IN EVERY CASE OF MIS-  
REPRESENTATION OR COLOURABLE IMITATION



**WOODS' ARECA NUT TOOTH PASTE.**

For Removing Tartar and Whitening the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

**WOODS' QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM**

(WITH GREASE), Restores the Hair if weak or falling off. Price 9d., 1s. 6d. and 3s. 6d. per bottle.

**WOODS' QUININE, CANTHARIDINE, & ROSEMARY HAIR WASH,**

Similar to the above (without grease). Price 1s. 6d. and 3s. 6d. per bottle.

**WOODS' DANDRUFF POMADE.**

Never fails. 1s. per pot.

Proprietor: W. WOODS, M.P.S., Chemist, Plymouth.  
SOLD WHOLESALE BY ALL LONDON HOUSES.

AWARDS:  
London and  
Vienna  
Exhibitions

**Wood Stains,**

AWARDS:  
London and  
Vienna  
Exhibitions

**IN LIQUID AND POWDER.**

Packed in 1-lb., ½-lb., ¼-lb., and 2-oz. Boxes, ½-pint 6d. Bottles, and bulk.

Specimen Boards and Circulars supplied when ordered.

MANUFACTURER,

**THOMAS S. JACKSON,**

199 BOROUGH, LONDON, S.E.,

And of all Patent Medicine Warehousemen. Write for New Price Lists of Oil and Spirit Varnishes, Colours, Paints, &c.

**ROUND AND OVAL CHIP AND WILLOW BOXES**

Of any size, in the very best quality that can possibly be made. Large stock kept in London. Any buyers of these goods should compare my Samples and Prices before ordering elsewhere.

**PAUL METZ, Manufacturers' Agent,**

19 & 20 HAMSELL STREET, FALCON SQUARE, LONDON, E.C.

Bankers, London and Westminster Bank, Lothbury, E.C.

**TO THE TRADE.****DUVAL'S SEVEN AGES MILK BALSAM FOR THE HAIR.**

A pretty novelty for ordinary daily use. It has the appearance of Milk, and is very agreeable in application, without the greasiness of lime-juice preparations. It is not liable to separate, and is put up attractively in Large Bottles at 1s., 1s. 6d., & 2s. 6d.

Proprietors, LETCHFORD & Co.,  
63 WILSON ST., FINSBURY, LONDON.

**OKELL'S ORIGINAL MONABOUQUET**

Retail, 1/1, 1/9, and 3/6; Wholesale, 9/1, 15/1, and 30/1 per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the SOLE CONSIGNEE, THOMAS WEST, Chemist, Stretford, Manchester.

**TRY IT!  
SPANISH**

In Bottles,

Unvalued for RESTORING HAIR, RENEWING, CLEANSING, THICKENING, and PREVENTING the Hair

**IT NEVER FAILS!  
WASH!!**

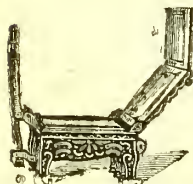
2/6 & 5/- each.

from FALLING OFF or Turning Grey, instantly removing all Scurf or Dandruff, leaving the skin pure and healthy.

Of Messrs. Low & Haydon, 330 Strand, London; Barclay & Sons, 95 Farringdon Street, London; of any Chemist or Hairdresser; or of A. P. Muddiman, Leighton Buzzard, Beds.

**INTERNATIONAL EXHIBITION, 1870.**

283, CLASS 3.

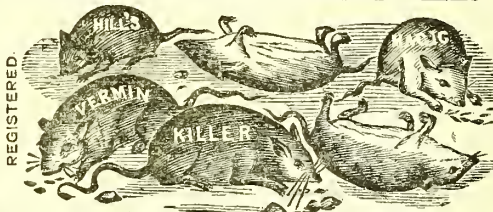


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PRINTING PRESSES (all Iron) 25s. complete, to £10 10s.  
Specimens of Work, One Stamp.

**JABEZ FRANCIS, Rochford, Essex.**  
Type and Materials for Amateurs.  
Amateur's Guide, 64 pp., 13 stamps.

**HILL'S MAGIC VERMIN KILLER**

Is certain Death to Rats, Mice, Ants, Beetles, Cockroaches, and all kinds of Vermin.

**THEY TUMBLE OVER**

In packets, 3d., 6d., 1s., 2s., and 3s. each.

Wholesale Agents: Barclay & Sons, Sangers & Sons, London; or from the Maker,

AND DIE ON THE SPOT.

EDWARD HILL, WELLINGTON, SOMERSET.

Agents wanted in all towns, and by sending business card can have bills with name and address, and their name advertised as Agents in the local papers.

A LIBERAL DISCOUNT TO SHIPPERS.

ESTABLISHED 1863.

**J. T. JONES.**

Manufactory, Edith Row, King's Road, Fulham, S.W.  
(Formerly with Mr. Jas. Evans, Garlick Hill, City),

**GLARIFIER OF FINE LARD, MARROW,****SUET, AND OILS.**

ADEPSA PHARM. PRÆP. BENZ. P. B. &c.

PRICES ON APPLICATION.

**TRADE MARK. "COAGULINE." TRADE MARK.**

KAY'S New TRANSPARENT CEMENT for BROKEN ARTICLES.

"Clear as crystal," "stronger than glass," "tough as leather."

6d., 1s., 2s., in boxes or on cards. Show cards, handbills with name, &c., Specimens, &c., for home or export, free.

KAY'S COMPOUND ESSENCE OF LINSEED, "The Stockport Remedy," for Coughs and Colds. Cures nine cases out of ten. In bottles, 9d., 1s. 1½d., 2s. 9d., 4s. 6d., &c. Sold by all Chemists.

LINSEED LOZENGES.—(Solidified Linseed Tea).—An agreeable sweetmeat, most demulcent and nourishing, which may be taken in any quantity by Children and Adults, for their soothing and beneficial effect. Packets, 6d.

CHLORO-LINSEED COUGH LOZENGES.—A medicated Linseed Extract, for out-door use, on leaving a heated room, &c. Demulcent, Expectorant, Warming and soothing. Packets, 6d.

LINUM CATHARTICUM PILLS (of the Purgative Linseed). Purely vegetable: the most wholesome aperient and corrective for young persons and adults. Boxes, 9d., 1s. 1½d., 2s. 9d., of all Chemists.

KAY'S TIG PILLS.—A specific and pure nervous Tonic. The best form of administering the Quinine, Iron, and other Tonics of which they are largely composed. Boxes, 9d., 1s. 1½d., 2s. 9d., of all Chemists.

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CUE CEMENT.—For Tipping Billiard Cues. 1s. and 2s.

For Circulars, Show Cards, Specimens, &c., address:—

**KAY BROTHERS, Stockport.**

Sold by all the Wholesale Druggists, Sundrymen, and Medicine Vendors.



# G. B. KENT & CO.,

IMPORTERS OF  
BRISTLES.

**BRUSH MANUFACTURERS,**

IMPORTERS OF  
SPONGE.

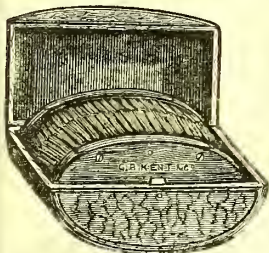
11 GREAT MARLBOROUGH STREET, LONDON, W.

SILVER MEDAL

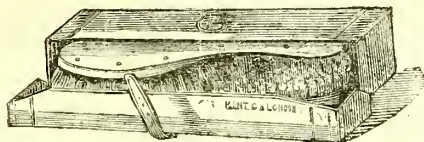
ESTABLISHED 1777.

[PARIS, 1878.]

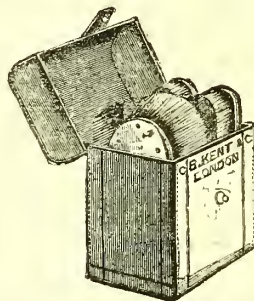
*Kent's Solid Leather Cases, Fitted with Brushes, &c., &c.*



Cases in Alligator Skin.



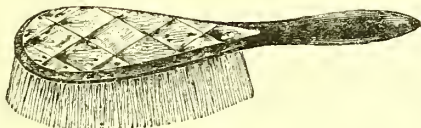
Solid Leather Cases, Fitted.



Cases only to contain one pair of Military Hair Brushes 3s. each.



SPONGES ON STRINGS.



KENT'S HAIR BRUSHES, IN WOOD, IVORY, SHELL & PEARL.



KENT'S COMBS, IN INDIA RUBBER, IVORY, OR SHELL.



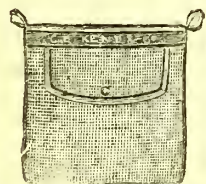
KENT'S CLOTH BRUSHES, IN WOOD AND IVORY.



KENT'S ROACH CLOTH BRUSHES.



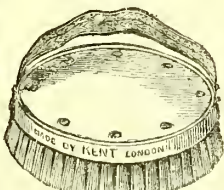
KENT'S HAT BRUSHES, IN WOOD AND IVORY.



SPONGE BAGS OF ALL KINDS.



KENT'S HAND MIRRORS,  
Manufactured by  
G. B. KENT & Co.'s  
PATENT MACHINERY,  
Are unsurpassed for Price  
and Quality.



KENT'S FLESH BRUSHES.

**KENT'S TOOTH BRUSHES**  
Are manufactured at their Factory at Victoria Park, expressly set  
apart for this one description of Brush.



Price per dozen.

First Quality	G.B. Kent & Co		London	6/6
Second Quality	Imperial		Quality	5/0
Third Quality	WARRANTED		LONDON	4/0
Fourth Quality	WARRANTED		SECURE	3/6
Fifth Quality	WARRANTED		SOUND	3/0
Badger Hair Tooth Brushes	..	..	4/6 6/0 8/0 10/0 per doz.	
Children's "	..	..	3/0 3/6 4/0 "	
Tooth Brush Guards	..	..	Metal, 3/3 Porcelain, 5/0 "	
Japanned Wet Brush Holders	..	..	3/3 5/6 6/6 13/0 "	

## SHAVING BRUSHES.

Prepared Hair	..	2/0 4/0 6/0 7/6 9/0 12/0
Badger "	..	8/0 9/6 14/0 18/0 21/0 24/0 28/0 32/0

## KENT'S NAIL BRUSHES.



Dent Back	..	4/0 7/0 8/6 10/6 12/0 14/0
Round End	..	4/0 7/0 8/6 11/0 13/0 15/0
Rounded Grooved	..	19/0 24/0 28/0 32/0 36/0 40/0

QVAL



PATTERN.

No.	22/0	23	23	24
	8/6	13/0	17/6	22/0
Handled Nail Brushes	..	4/0 4/6 7/0 8/0 10/6 12/0 16/0 per doz.		
Wood	..	Trepanned 12/0 16/0 18/0 21/0 24/0 27/0 "		
"	..	Fibre 21/0 27/0 30/0 36/0 42/0 48/0 54/0 per grs.		

**KENT'S PAINTING BRUSHES** are of the highest quality, and warranted of standard sizes. **KENT'S HOUSEHOLD AND STABLE BRUSHES** of every description.

G. B. KENT AND CO.'S ILLUSTRATED PRICE CURRENT FOR 1879, FREE ON APPLICATION.



# G. SALTER & CO., WHOLESALE PERFUMERS

And FANCY BRUSH MANUFACTURERS,  
Red Lion Square, London.

(ESTABLISHED 1830.)

X The best value given in Pomades, Lime Juice  
and Glycerine, Indian Cream, French Extracts,  
&c., &c.

Specialitie Triple Extracts, Gilt Sprinklers, or  
Glass Stoppered Bottle, 1 oz., 12s.; 1½ oz., 17s.

AGENTS FOR

DR. STARTIN'S "MEDELA,"

OR ANTI-SCURF POMADE, 12s. dozen.

DR. LINCOLN'S HAIR RENEWER,

A NEW PREPARATION FOR RESTORING THE HAIR,  
WELL GOT-UP,

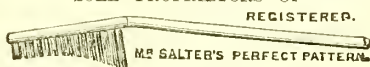
In Two Bottles in One Case, 24s. dozen.

TINGO COMA,

THE BEST DYE IN THE MARKET,  
20s. dozen.

A Sample Case of well-selected Perfumery, Pomades,  
&c., sent to any address on receipt of P. Order for 25s.

SOLE PROPRIETORS OF



DIRECT OR THROUGH ALL WHOLESALE HOUSES.

the Old Style

PLEASED BY  
PATENT  
MACHINERY.

SOLD BY ALL  
DRUGGIST'S SUNDRIESMEN  
Manufactory,

LONDON

HUNT'S  
PAPER  
BOTTLE  
CAPS.

THE  
NEW

3, 4, and 5 Little Windmill Street, Golden Square.



## RIMMEL'S AROMATIC OZONIZER,

Or NATURAL AIR PURIFIER, a fragrant powder producing by simple slow evaporation in dwellings, or places of public resort, the balmy, refreshing, and healthy emanations of the Pine and Eucalyptus forests. Certified by Dr. Hassall to be the most effective and agreeable disinfectant. Price 1s. By post for 15 stamps.

Evaporating Dishes, 6d.: with Foot, 1s.

## RIMMEL'S OZONIZED PERFUMERY.

Dr. DAY, of Geelong, who has devoted much time and attention to sanitary questions, has discovered that alcoholic perfumes form excellent vehicles for diffusing ozone in the atmosphere and destroying noxious emanations and miasma. At his suggestion, E. Rimmel has prepared a series of Toilet Waters (Eau-de-Cologne, Lavender, and Florida), which are oxygenated by a chemical process, and evolve a quantity of Ozone. They are strongly recommended to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea; also to be sprinkled on beds or carpets, or on a pad hung up in the air. Dr. Day writes to E. Rimmel (November 28, 1877):—"In manufacturing and making known the hygienic value of oxygenated perfumery you will be conferring a great benefit to the public, for it is the best means of disinfecting bedrooms, closets, &c.

PRICES:—Rimmel's Ozonized Eau-de-Cologne	4 oz. round bottles . . . . .	2s. 6d.
Rimmel's Ozonized Lavender Water	8 do. do. . . . .	5s. 0d.
Rimmel's Ozonized Florida Water	16 do. do. . . . .	9s. 0d.

Sanitary Pads to be impregnated with the above and hung up in the air, 1s. The usual allowance to the Trade. Wholesales Lists on application to

EUGENE RIMMEL, Perfumer by Appointment to H.R.H. the Princess of Wales,  
96 STRAND, LONDON.

WHITE AND SOUND TEETH.

## JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been Forty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY and BROWN,  
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.



# C. J. KING,

## HUMAN HAIR MERCHANT,

### HAIRDRESSERS' SUNDRYMAN,

And Importer of Perfumery & Fancy Goods,  
5, 6, & 7 HOLBORN BARS,  
LONDON, E.C.



TRADE MARK.



TRADE MARK.

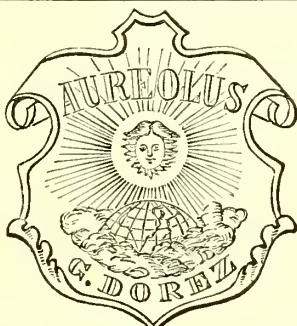
**COMBS, BRUSHES, MIRRORS, CUTLERY.**  
FRENCH PERFUMERY—E<sup>d</sup>. PINAUD'S and DEMARSON, CHETELAL & CO.

PATENTEE OF THE  
**IVORIDE DRESSING COMBS.**  
THESE COMBS BEAR THE NEAREST RESEMBLANCE TO IVORY.

**GOLDEN HAIR.**

**G. DOREZ'S**  
**GOLDEN**  
*For the*

TRADE MARK.



TRADE MARK.

**AUREOLUS.**  
**FLUID**  
*Hair.*

**GOLDEN HAIR.**

This preparation produces one of the most beautiful and fashionable tints that have been conveyed to the Human Hair. It converts Hair of any colour to tints varying from the richest auburn to the most brilliant golden or sunny hue. It is perfectly harmless and free from smell. In all instances it has given the greatest satisfaction; and is, as a genuine and profitable article, recommended to the Trade. Pamphlets and Handsome Show Cards.

5s. size, price 30s. per dozen.

Sole Agent: C. J. KING, London.

## AMERICAN BAY RHUM.

TRIPLE DISTILLED. The only true Universal & Genuine Article.  
Distilled from the leaves of the Bay Tree (Myrciactris).  
THIS ARTICLE COMMANDS A READY SALE.

This delicate Spirit has acquired a great popularity in America and the West Indies. It is an indispensable Eau de Toilet for the Nursery and Bath, and is an effective remedy for Headache, Nervousness, and Rheumatic Pains. It also alleviates irritation of the skin after shaving or from change of temperature, and removes all impurities from the skin.

## ENGLISH LAVENDER WATER.

Much admired for its lasting fragrance.

## LIME JUICE AND GLYCERINE.

This valuable toilet preparation for the Hair is highly recommended on account of its nutritive and restorative properties.

Attractively put up in Round Shouldered White Glass Bottles.

3 ozs.	4 ozs.	6 ozs.	8 ozs.
2s. 9d.	3s. 6d.	5s. 3d.	7s. per doz.

C. J. KING, 5, 6, & 7 HOLBORN BARS, LONDON, E.C.



# LAC BISMUTHI

TRADE MARK.



This Preparation, originated by us Eight Years since, can be obtained direct or through the Wholesale Houses.

4s. per lb.

**SYMES & CO., LIVERPOOL.**



**JOSEPH GILLOTT'S  
STEEL PENS.**

Sold by all Dealers throughout the World.

## MORGAN'S PATENT CRUCIBLES



HAVE RECEIVED AT EACH EXHIBITION the HIGHEST AWARD made for CRUCIBLES. The quality is uniform, withstanding the greatest heat without danger, and they never crack. Porous Battery Cells, &c., are manufactured by

**THE PATENT PLUMBAGO  
CRUCIBLE COMPANY,  
BATTERSEA WORKS, LONDON, S.W.**

## INDEX TO ADVERTISEMENTS,

See Pages 49 & 50.

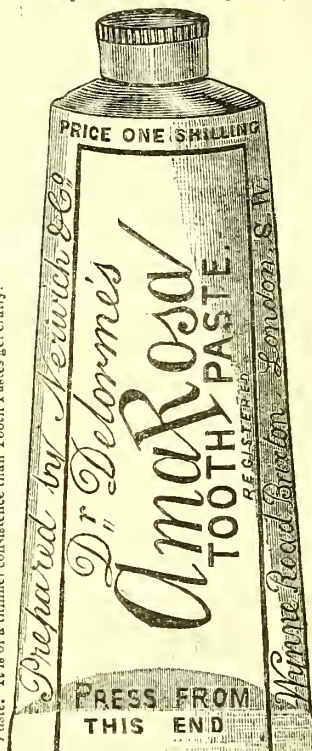
To Shippers.]

DR. DELOIRME'S

[To Shippers.]

# AMAROSA TOOTH PASTE,

In Collapsible Tubes (Registered).



ADVANTAGES.—By our manner of putting this Paste up in collapsible tubes instead of pots, all the aromatic and antiseptic qualities of the Paste are preserved—and the tubes being air-tight the contents cannot become dry or hard. It is also very convenient for travelling, being protected from the dust and dirt. It is more economical in use, as the exact quantity can be pressed out on the brush. The quantity contained in each tube is greater than a pot of corresponding price, and it is not subject to breakage. FOR SHIPPING, AND IS NOT SUBJECT TO BREAKAGE. THE CHEMIST AND DRUGGIST, of July 14th, 1877, says, "Dr. DELOIRME'S AMAROSA TOOTH PASTE, prepared by NEWNHAM & CO., LONDON, is a very pleasant preparation to use, and is peculiar for being contained in collapsible cases, similar to the perfume 'bouteilles', &c., a method, very suitable for Tooth Paste. It is of a thinner consistency than Tooth Paste generally."

To be had of all Chemists and Perfumers throughout the World.  
SPECIAL QUOTATION, 3s. 3d. and 6s. net. Show Cards and Hand Bills with each package.  
SOLE PROPRIETORS—  
**NERWICH & CO., 34 WYNNIE ROAD, BRIXTON, LONDON, S.W.**

## J. ROGERS & CO.,

## MEDICAL BOX TURNERS,

1, 2 & 3 CARTER STREET, WALWORTH, LONDON,

TURNERS OF EVERY DESCRIPTION OF TOOTH POWDER, PLATE POWDER, PILL AND PUFF BOXES USED BY CHEMISTS, PERFUMERS, ETC.

PATENTEES AND MANUFACTURERS OF THE

# SILICATED GREASE PROOF BOXES

These Boxes are made of White Wood, Silicated inside, rendering them quite Grease Proof, and will be found very convenient to send by post.

They are very light, being one-sixth the weight of covered pots.

They are not breakable.

We have just issued a REVISED PRICE LIST for these and all other Box s made by us. We are now able to make a considerable reduction on previous prices.

The Lids fit quite air-tight.

They are made to stand any climate.

PRICE LIST ON APPLICATION.

TRADE MARK.



## JOSEPH IZOD,

IMPORTER & WHOLESALE DEALER IN MEERSCHAUM & BRIAR PIPES,

And every Requisite for Tobacconists,

FARRINGTON ROAD, LONDON, E.C.



TRADE MARK.



## CAUTION TO THE TRADE.

# A. S. LLOYD'S EUXESIS.

In addition to A. S. LLOYD'S original signature on Label, each tube of **GENUINE** Euxesis bears the following distinctive marks:—

Firstly.—My full name, "Aimée Lloyd," on cap of Tube.

Secondly.—The words, "Prepared by his Widow," in raised letters on top of Tube.

Thirdly.—My Address, No. 3 Spur Street, Leicester Square, London, on both English and French Labels.

(Signed), AIMÉE LLOYD,

(Widow of A. S. Lloyd),

Sole Proprietor and Manufacturer of the **GENUINE** Lloyd's Euxesis.

## DR. NICHOLS' SANITARY SOAP.

Since its introduction a year ago, the sale of this Soap has been extraordinary. It simply needs a trial.

Sold to the Public in 6d. and 4d. Tablets. Price to the Trade, 48s. and 32s. per Gross.

Proprietors—**FRANKS & CO., 14 LITTLE TOWER STREET, LONDON.**

TRADE MARK



**P. A. STEVENS**, Chemist and Dentist, 70 HYDE ROAD, HOXTON, LONDON, N., Sole Proprietor and Maker of the **SILVER WHITE GUTTA PERCHA ENAMEL** for Stopping Decayed Teeth.

P. A. S. is prepared to supply the above to Wholesale Houses and Chemists, in any quantity, with their name stamped upon each stick, cut any length.

Price List and Samples sent post free.

To be obtained of all Wholesale Houses. Special Terms to Shippers.

**SPECIAL NOTICE.**—The words **SILVER WHITE GUTTA PERCHA ENAMEL** are registered as a Trade Mark, and will be protected.

**SPONGE.**

**M. PETERSON & CO., Importers.**

66 SOUTH JOHN STREET,

**LIVERPOOL.**

For Home, Foreign, and Colonial Markets.

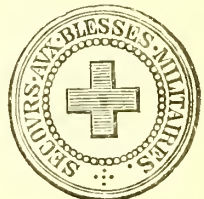
**Wholesale only.**

## THE CHEAPEST

SILVER MEDAL.



BRONZE MEDAL



**OF ALL**

IS SUPPLIED BY

# R. CONDY & COMPANY,

OF 8 STATIONERS' HALL COURT, LONDON, E.C.

**REDUCED PRICES.**

Condy's Fluid, red, 1/- size, 4/- per dozen, net.	Condy's Ozonised Water, 2/- size, 8/- per doz. net.
" " " 2/- " 8/- " " "	" " " 3/6 " 16/- " " "
" " " 4/- " 16/- " " "	

Condy's Fluid Green and in bulk at usual Prices and Discounts.

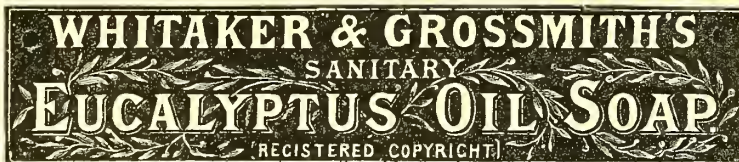
**OURS ARE THE ONLY 1s. ARTICLES SOLD TO THE TRADE AT 4s. PER DOZEN.**

**NO ALTERATION IN SELLING PRICES TO THE PUBLIC.**

Direct Orders promptly attended to, and Special Terms made for Large Quantities. Small Buyers can procure our Articles through their Wholesale House.

Order **R. CONDY & COMPANY'S**, and obtain the benefit of our Reduced Prices.

Highly recommended by the *Lancet*, *Sanitary Record*, and the *Medical Press* as an elegant Antiseptic Toilet Soap for the Skin, with an aromatic disinfectant for the Apartment.



The Antiseptic properties of the *Eucalyptus Tree* are now fully retained by enclosing the Soap in tinfoil, and any of the old stock on hand will be exchanged for fresh, free of cost.

The Standard says:—"As an antiseptic, *Eucalyptus Soap* has no rival."  
1s. 6d. Boxes of Three Tablets. 12s. per Dozen Boxes.

Special Articles particularly noted for their excellence:

TOILET SOAPS.			Per doz.	BOUQUETS.			Per doz.	POMADES, &c.			Per doz.
<i>Cent-Fleur</i> (copyright)	2/6	Boxes of 3 tablets	20/	<i>Cent-Fleur</i> (copyright)				<i>Cent-Fleur</i> (copyright)	8/	12/	& 20/
<i>Jockey Club</i> "	1/6	"	12/	<i>Star of India</i> ...				<i>Petroleum Pomade</i> ...	12/	& 18/	
<i>Musk Windsor</i> "	1/6	"	12/	<i>Pearl of Perfumes</i> ...	In Glass Stopped	12/		<i>Brilliantine</i> ...	...8/	12/	& 20/
<i>Sandringham</i> "	1/6	"	12/6	<i>Stephanotis</i> ...	Sprinkling cap	18/		<i>Anglo Eau de Cologne</i>	8/	& 12/	
<i>Eucalyptus Oil</i> "	1/6	"	12/	<i>White Rose</i> ...	Bottles.	24/		<i>Eucalyptus Vinegar</i> ...	12/	& 20/	
<i>Semi-Cut Bars</i> "	1/	Bars of 6 kinds	8/6	<i>Ylang-Ylang</i> ...				<i>White Cherry Tooth Paste</i>	8/	& 12/	

TRADE PRICE LISTS SENT AND ORDERS EXECUTED THROUGH WHOLESALE HOUSES, OR DIRECT FROM THE MANUFACTURERS,

WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore St., City, London.

## RECTIFIED

# SPIRITS OF WINE

One Quality only—Finest BRITISH SPIRIT.

Not less than 2 Gallons, 56° o.p., 20/6; 60° o.p., 21/0 per Gallon.

" " 6 " 56° o.p., 19/9; 60° o.p., 20/3 " "

FOR CASH ON DELIVERY ONLY. COUNTRY ORDERS MUST CONTAIN A REMITTANCE

## HENRY BRETT & CO.,

OLD FURNIVAL'S DISTILLERY, 26 & 27 HIGH HOLBORN, LONDON, W.C.

SPIRITUS RECTIFICATUS, P.B.

# CHEMICALLY PURE SPIRITS OF WINE.

A highly-rectified English Grain Spirit, free from Fusel Oil.

60 over proof, 20s. 10d. per gallon; 56 over proof, 20s. 4d. per gallon; less 6d. per gallon for five gallons. Lower quotations for quantities. Cash on delivery or with order. Packages charged, and money repaid when empties returned, 2s. 6d. for two gallons; 5s. for five gallons. Country Orders must contain remittance or reference to London House.

JAMES BURROUGH, CALE STREET DISTILLERY, LONDON, S.W.

ALSO DUTY FREE FOR EXPORTATION.

## PURE SPIRITS OF WINE

FOR  
TINCTURES, ESSENCES, PERFUMES, &c.,  
OXFORD ROAD DISTILLERY, MANCHESTER.

MESSRS. SMITH & GIBB

Des to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon.
63 over proof ..	0.8238 ..	21 0
60 " ..	0.8298 ..	20 8
55 " ..	0.8366 ..	20 2
50 " ..	0.8482 ..	19 6

Special quotations for large quantities.

Terms—Cash on Delivery. Jars to be returned or paid for.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 6 galls. 6/-. When the empties are returned the money will be repaid. Can be had free for exportation.

## BEDDARD'S

### SPRING & AUTUMN HEALTH SALINE.

Neatly put up in 6d. and 1s. Packets. Very saleable.

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### BELGRAVIA TOOTH PASTE.

A MOST EXCELLENT DENTIFRICE.

Handsomely put up in large Jars. ONE SHILLING EACH.

LIBERAL TERMS TO TRADE, SPECIAL TO SHIPPERS.

PREPARED ONLY BY

JOHN BEDDARD,

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THE BEST SHILLING MARKING INK.

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Usual Terms and Discounts. Counter Bills with Name and Address as Agent on Application.



# ESTABLISHED 100 YEARS.

## TOILET AND FANCY SOAPS

OF EVERY DESCRIPTION.

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No. 1 extra ..... 12/ per pint of 20 ozs.  
 No. 1 ..... 9/6 " "  
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 Put up also in great variety of size, style, and price.

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 stoppered bots., 4/ & 8/  
 per doz.

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 MANUFACTURERS,  
 TOILET SOAPS & PERFUMERY.

PRICE LISTS  
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 (Illustrated Label) ..... } 9/ and 27/ per doz.  
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 Cold Cream Soap, in boxes, 3 tbs. in box (1/6 & 2/6) 12/ & 21/ "  
 Stockholm Tar Soap in boxes, 3 tablets in box (1/6) ... 12/ "  
 Pure Coal Tar Soap ... } in 4d., 6d. & 8d. tblts, in 3 doz. boxes, 2 6/3, 4/6 doz.  
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BY HER MAJESTY'S ROYAL LETTERS PATENT.

PRICES, IN PACKETS, 1s. 6d., 2s. 6d., & 4s.

Full Directions for use with each Bottle.

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For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 7 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

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Sold by leading Wholesale Houses and Factors, and by the Inventor, J. GODDARD, STATION STREET, LEICESTER.

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Polishing Paste,

For Cleaning Brass, Copper, and Britannia Metal Goods, &c.

Pickerings' Razor

Paste,

For Sharpening Razors, &c.

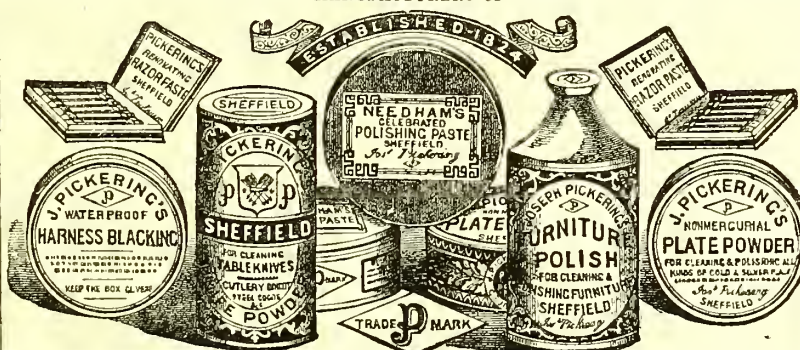
Waterproof

Harness Blacking,

For Black Leather Harness.

DIPLOMA OF MERIT, VIENNA EXHIBITION, 1873.

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Brunswick

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ESTABLISHED 1840.

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**MEDICAL SHOP FITTERS**  
 AND  
**SHOW CASE MAKERS,**  
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Estimates and Designs Supplied.

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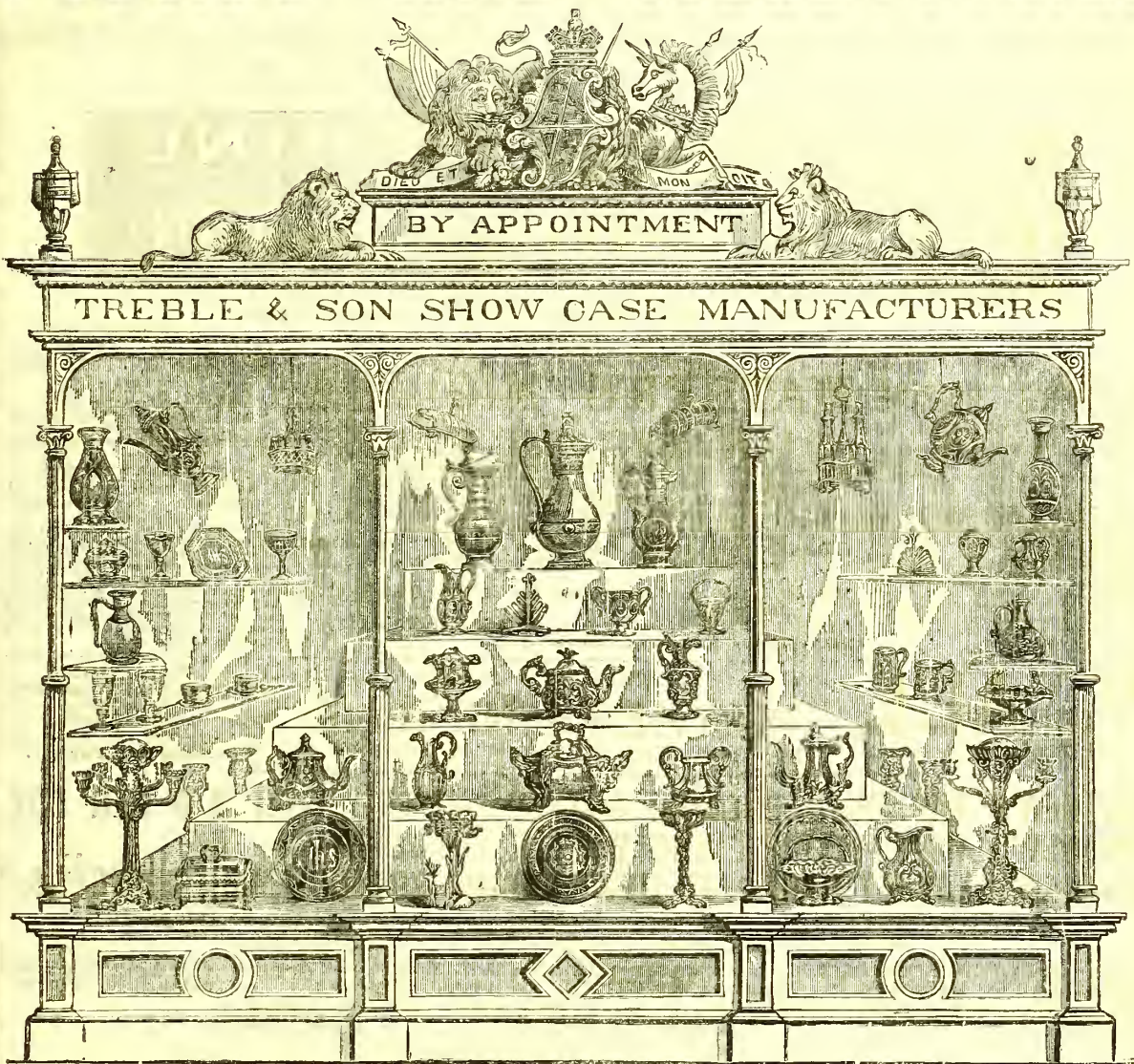
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A JET BLACK MARKING FLUID,  
**FOR MARKING LINEN, COTTON &c**  
NO PREPARATION OR HEATING REQUIRED AFTER BEING WRITTEN.

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SELL

**MATHER'S NIGRINE.**

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Samples sent post free on receipt of  
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Ladies will find an interesting and agreeable occupation in using MATHER'S NIGRINE for Etching Fern Leaves, Rustic Scenery, Views, &c., on cloth, which may be used for dessert doyleys, antimacassars, toilet mats, and sundry other ornamental and useful work, as, from the finer lines remaining distinct after repeated washing, very satisfactory results may be obtained from this fluid, which is not the case with any other marking ink.

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A Liberal Discount to Large Buyers.

Extract from *The Lancet*, Jan. 5th, 1878.

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ARTICLES MARKED WITH

**SOLUTION:**  
Cyanide of Potassium,  
Caustic Potash,  
Caustic Soda,  
Chloride of Lime or  
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With Porcelain Fittings, 7s. per doz. | With Boxwood Top Corks, 3s. 6d. per doz.

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MATHER'S Cough Lozenges.  
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MATHER'S Court Plaster.  
MATHER'S Chemical Fly Papers.  
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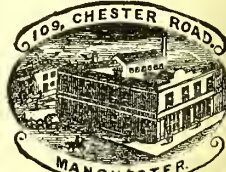
MATHER'S Chest Protectors.  
MATHER'S Emp. Cer. Saponis.  
MATHER'S Elastic Gum Bongies.  
MATHER'S Elastic Gum Catheters.  
MATHER'S Elastic Stockings, Belts, &c.  
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MATHER'S Indiarubber Syringes, &c., &c.  
MATHER'S Indiarubber Teats, &c.  
MATHER'S Indiarubber Tubing.  
MATHER'S Marking Ink.  
MATHER'S Nelson's Improved Inhaler.

MATHER'S Oriental Rose Cream.  
MATHER'S Poor Man's Plaisters.  
MATHER'S "Princess" Feeding Bottle.  
MATHER'S Pill Machines.  
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MATHER'S Tincture Presses.  
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TEN PER CENT. DISCOUNT FOR CASH.

SPECIAL QUOTATIONS TO WHOLESALE AND EXPORT BUYERS.

On the 1st of March, 1st of June, 1st of September, and 1st of December, is published MATHER'S QUARTERLY PRICES CURRENT, comprising Druggists' Sundries, Medical Glass Ware, Perfumery, Surgical Plaisters, &c., &c. Chemists and Druggists not receiving it in due course are respectfully requested to forward their names and addresses to Publishing Department, FARRINGTON ROAD, LONDON, when they will be placed on the Register for regular transmission.





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March 15, 1879.

## SCALE OF CHARGES FOR ADVERTISEMENTS.

Whole Page, £5. Half Page, £2 15s. Third Page, £2. Quarter Page, £1 12s. Sixth Page, £1 5s. Eighth Page, 18s.

Special Rates for Wrapper and pages preceeding and following Literary matter, also pages facing inside of Wrapper. The above Scale of Charges will be subject to a discount of 10 per cent. upon 7 and 20 per cent. upon 13 insertions, prompt quarterly payments.

N.B.—An order for 13 insertions means 12 in the CHEMIST AND DRUGGIST and 1 in the CHEMISTS' AND DRUGGISTS' DIARY. The same rule also applies to an order for 7 insertions, or to an order for insertion until countermanded, if such order is in force in October of any year.

All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th, except Employers' and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.

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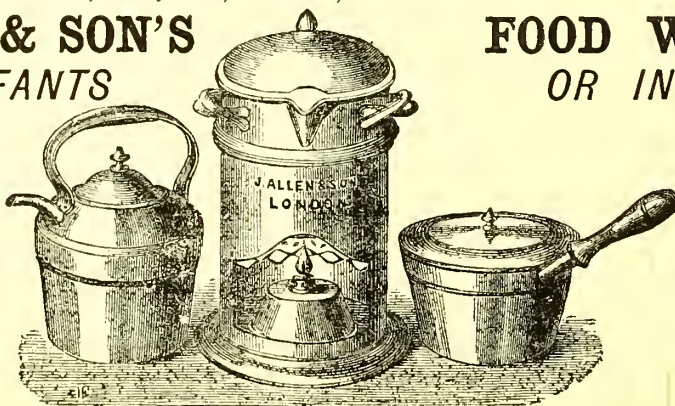


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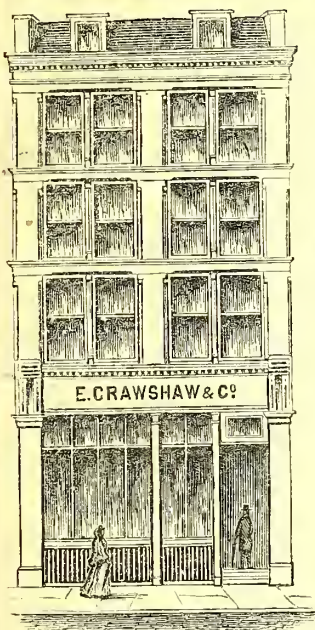
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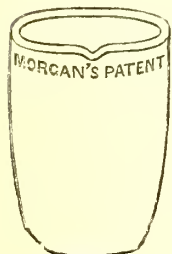
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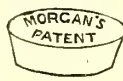
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E	4 1/2	3 1/2	0 1 4	0/6
G	5 1/2	4 1/2	0 2 0	1/0
J	6 1/2	5 1/2	0 3 0	1/6
L	8 1/2	7 1/2	0 5 6	2/0
N	9 1/2	8 1/2	0 9 0	3/0
P	11 1/2	10 1/2	0 15 0	3/6
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D	4 1/2	3 1/2	0 0 10	0/6
F	5 1/2	4 1/2	0 1 5	1/0
H	6 1/2	5 1/2	0 2 1	1/3
K	7 1/2	6 1/2	0 3 2	2/0
M	8 1/2	7 1/2	0 6 6	2/6
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No.	Height, inches	Width, inches	Crucibles, per doz.	Covers, per doz.
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U	5 1/2	4 1/2	0 1 1	0/6
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Y	7 1/2	6 1/2	0 0 5	0/6

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No.	Height, inches	Width, inches	Crucibles, per doz.	Covers, per doz.
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V	5 1/2	4 1/2	0 0 10	0/9
X	6 1/2	5 1/2	0 0 6	0/6
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1	in. 2 1/2	6s.	6s. 12s.
2	2 3/4	9s.	6s. 18s.
3	3 1/4	12s.	9s. 24s.
3 1/2	3 3/4	15s.	12s. 24s.
4	4 1/4	18s.	12s. 30s.
4 1/2	4 3/4	24s.	15s. 30s.
5	5 1/4	30s.	18s. 36s.
5 1/2	5 3/4	36s.	24s. 36s.

Crucible Stands in all sizes, for Round and Triangle, &c.

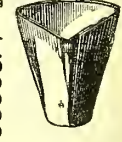
### RETORTS. (PER DOZEN.)

	Plain.	Tubulated.		Plain.	Tubulated.
1-pint	9s.	12s.	2-quart	42s.	54s.
2-pint	9s.	12s.	3	54s.	66s.
3-pint	15s.	20s.	4	60s.	72s.
4-pint	24s.	30s.	6	90s.	108s.
5-pint	30s.	36s.	8	120s.	144s.
6-pint	36s.	45s.	16	180s.	210s.

### LONDON TRIANGLE. (PER GROSS.)

AS USED BY THE LONDON AND BIRMINGHAM REFINERS.

No.	Height	Crucibles	Covers
			Flat
1 1/2	in. 1 1/2	£ 0 4 0	6 0
2 1/2	2 1/2	0 5 0	6 0
3 1/2	3 1/2	0 6 0	6 0
4 1/2	4 1/2	0 8 0	6 0
5 1/2	5 1/2	0 9 0	6 0



### SKITTLE POTS. (PER DOZEN.)



Inch.	Per doz.	Inch.	Per doz.
3	£0 1 6	10	£0 7 6
4	0 2 0	11	0 9 0
5	0 2 6	12	0 12 0
6	0 3 0	14	0 18 0
7	0 3 6	16	1 4 0
8	0 4 6	18	2 2 0
9	0 6 0	20	3 0 0

The Skittle Pots are particularly well suited for all refining purposes; the contracted form prevents the ebullition of the fluxes.

SKITTLE POT STANDS AND COVERS.



## SPRATT'S PATENT

### MEAT "FIBRINE" DOG CAKES, POULTRY & GAME MEAL, DOG MEDICINES AND DOG SOAP.

"THE KENNEL MEDICINE CHEST" contains all our Medicines, also various Surgical Appliances.

*Chemists will find that the above articles have a ready sale.*

For Terms address—"SPRATT'S PATENT," Bermondsey, S.E., or your Wholesale House.

## CHEMISTS

Are invited to send to the Laboratory for a gratis supply of

### "AMICUS CANIS"

for distribution amongst their clients. A demand for the MEDICINES almost invariably follows their circulation. The Pamphlet is neatly got up, and forms a welcome gift to all who keep dogs.

*The Medicines may be obtained of the Wholesale Houses, or direct from the Laboratory for Cash.*



## WHOLESALE HOUSES

At home and abroad, by forwarding

### "AMICUS CANIS"

to retail Chemists for distribution, will find a profitable demand created for the MEDICINES. Any quantity will be supplied gratis, with name of firm inside cover, on application at the Laboratory.

## HORSE, CATTLE, AND SHEEP MEDICINES.



BY ROYAL APPOINTMENT.

## DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE



## "ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS,

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for over 40 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
- "RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.
- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
- "BRONCHOLINE," for Husk or Hoarse in Sheep, Lambs, and Calves.
- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6s. 6s. Horsekeeper's Chest, No. 4, £2 17s. 6d.

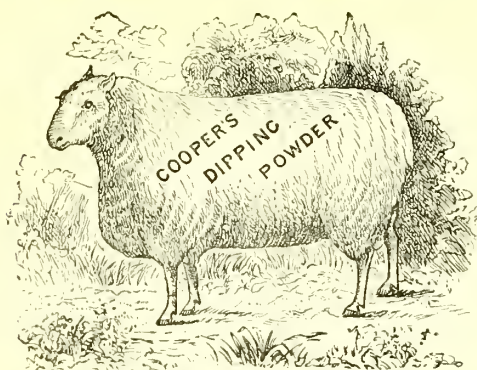
**CARRIAGE PAID TO ALL PARTS.**

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed. Patronised by Royalty and the leading Agriculturists of the British Empire, and awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, Spring Exhibition, 1871; President's Medal at the Spalding Show, July, 1872; Silver Medal, Manchester and Salford Show, November, 1874; Silver Medal, Preston Agricultural Show, June, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford Show, September, 1875; Silver Medal, Cheshire Agricultural Society, Crewe Show, September, 1875; Special Prize, National Agricultural Society of Victoria, Australia, Spring Exhibition, November, 1875; Medal, Cheshire Agricultural Society, Cheshire Show, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Northumberland Agricultural Society, Newcastle-on-Tyne Show, August, 1877; Silver Medal, Kentsford Show, July, 1878; Medal, North Berwick Show, July, 1878; and Medal, Dairy Show, London, October, 1878.

CAUTION.—Beware of low-priced Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burbidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Lancaster.



## COOPER'S SHEEP DIPPING POWDER

Is soluble in Cold Water, and should be used in preference to any other Dip.

**FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.**

This Dip has been in use upwards of 35 years, and has never been equalled by any other: it is of uniform strength, does not stain the wool, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

In Packets to Retail at 1s. 4d. each, for 20 Sheep.

Counter Bells and Directions in English, Spanish, Dutch, &c., may be had free on application.

Terms and all particulars may be had of the Proprietor,  
**WILLIAM COOPER, M.R.C.V.S., Chemical Works,**  
Berkhamsted, Herts.

### CHEMISTS and DRUGGISTS

RESIDING IN

### AGRICULTURAL DISTRICTS

Will save themselves much labour and trouble by introducing thoroughly to **SPORTSMEN and FARMERS**

## GOSTLING'S HORSE & CATTLE MEDICINES.

Some Chemists have entirely discontinued making their own, as they find GOSTLING'S both to pay them well and to please their customers. The Proprietors, GOSTLING & SON, of Diss, in Norfolk, will assist any Chemist in establishing a sale, by supplying Pamphlets, &c., for distribution.

	TRADE PRICE LIST.		per doz.
	s.	d.	s.
GOSTLING'S Cough Balls .. ..	sell 1	6 per packet	14 0
GOSTLING'S Condition Balls .. ..	2	6 "	18 0
GOSTLING'S Condition Balls .. ..	1	6 "	12 0
GOSTLING'S Shepherd's Friend .. ..	1	8 per bottle	14 0
GOSTLING'S Shepherd's Friend .. ..	3	0 "	24 0
GOSTLING'S Shepherd's Friend .. ..	5	0 "	40 0
GOSTLING'S Gangrene Oils .. ..	2	0 "	16 0
GOSTLING'S Condition Powders .. ..	2	9 per packet	21 0
GOSTLING'S Cough Powders .. ..	1	9 "	16 0
GOSTLING'S Diuretic Balls .. ..	3	6 "	13 6
GOSTLING'S Purging Balls .. ..	0	6 each	4 0
GOSTLING'S Grease Balls .. ..	1	0 per packet	8 0
GOSTLING'S Foot-Rot Ointment .. ..	2	0 per pot	16 0
GOSTLING'S Iodine Ointment .. ..	2	0 "	16 0
GOSTLING'S Grippe Drink .. ..	1	6 per bottle	14 0
GOSTLING'S Pig Powders .. ..	1	0 per packet	9 0
GOSTLING'S Pig Powders .. ..	2	6 "	22 6

TERMS: 10 per cent. discount for Cash, 7½ per cent. at 6 months.  
Special Terms, on application, for large quantities.

Wholesale Agents.—LONDON: Barelay & Sons, 95 Farringdon Street; Newbery & Sons, 37 Newgate Street; Sanger & Sons, 150 Oxford Street; W. Sutton & Co., 10 Bow Churchyard; Butler & Crispie, 4 Cheapside; W. Edwards & Son, 38 Old Change; Hovenden & Sons, 93 & 95 City Road. YORK: Raines & Co. EDINBURGH: Raines, Blanshard & Co. LIVERPOOL: Raines & Co. NORWICH: Smith & Sons, Magdalen Street. CHESTER: Grindley & Son. IPSWICH: Grimwade, Ridley & Co. BRISTOL: Southall Bros. & Barclay. LEEDS: Goodall, Backhouse & Co. DUBLIN: McMaster, Hodgson & Co. THURSK: W. Foggitt.

## THE ORIGINAL "LUDDINGTON'S OILS,"

THE CELEBRATED

### HORSE, SHEEP, AND CATTLE MEDICINE

(REGISTERED).

Unrivalled as a Safe, Effectual, and Speedy Remedy for Colic, Gripes, and Gravel in Horses; Diarrhoea or Scour in Calves, Foals, Sheep, or Lambs; and is invaluable in cases of DIFFICULT LAMBING, FOALING, AND CALVING, it being a sure Preventive of Inflammation and Paining. Sold by all Chemists, in Bottles, 2s. 6d., 5s., and 10s. each. Sole Manufacturers and Exporters (for the Proprietor),

**TOMLINSON & HAYWARD, LINCOLN, ENGLAND.**

BEWARE OF SPURIOUS IMITATIONS.

## THE "GLYCERINE DIP,"

FOR SHEEP AND LAMBS.

A Certain Preventive and Cure of Scab, Destructive to Ticks, Lice, and all Parasites infesting the Skins of Sheep, Cattle, and other Animals. Its Emollient and Stimulating Properties greatly Promote the Growth of the Wool, and being a Powerful Disinfectant it arrests the spread of Contagious Diseases. Sold by Agents in every Market Town. Price 6d. per pound. Sole Manufacturers and Exporters (for Hardwicke, Guerin, & Co.),

**TOMLINSON & HAYWARD, LINCOLN, ENGLAND.**

### CHURNING MADE EASY!

## TOMLINSON & CO.'S BUTTER POWDER,

Brings the Butter Quickly, Removes all Unpleasant flavour of Turnips, Cake, Mangolds, Wild Garlic, Dead Leaves, &c.; Increases the Quantity and Improves the Quality of Butter, so that Farmers and Dairymen may insure Good, Firm, and Sweet Butter all the Year round. Sold in Boxes, 3d., 6d., 1s., 2s. 6d., and 7s. 6d. each, by Chemists and Grocers. Sole Manufacturers,

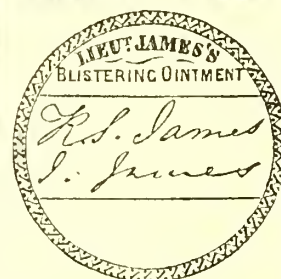
**TOMLINSON & HAYWARD LINCOLN.**

## ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.

### CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raines & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Sons, 27 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burbridges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; W. Mather, Farringdon Road, London, and Manchester; Tidman & Son, Wilson Street; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries' Company, Virginia Street, Glasgow; Bolland & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Hunt & Co., 17 Westland Row, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry. And by all Chemists, in Pots, 1/6, 2/3, and 5/.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNDEE and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

R. S. JAMES, 31 Years Sole Manufacturer, STANFORD, FARINGDON, BERKS.

Advertised in "Bell's Life" 45 years. Beware of a Spurious Imitation.

**W. S. YATES,**  
Chemists' Shop Fitter, Shop Front Builder,  
and Glass Show Case Maker.

PLANS AND ESTIMATES SUPPLIED FOR WORK IN ANY PART OF THE KINGDOM.

**9 CAMDEN STREET, LIVERPOOL.**



# SIDDALL'S CELEBRATED BEETLE POWDER!!

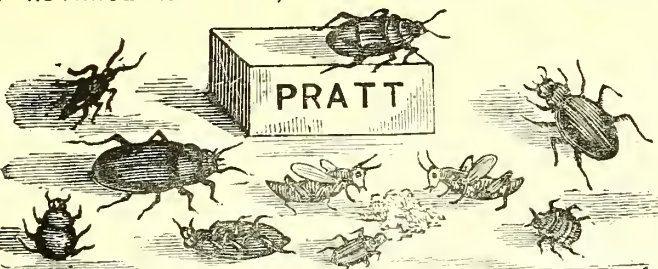
NO ADVANCE IN PRICE, BUT CHEAPER THAN EVER !!

Death to Beetles !!

Death to Cockroaches !!

Death to Crickets !!

3d., 6d., and 1s. packe's.



Death to Black Clocks !!

Death to Bugs !!

Death to Fleas !!

3d., 6d., and 1s. packets.

Has been established for more than Thirty Years, and is an excellent and most satisfactory Insecticide for the destruction of household pests—such as Black Clocks, Beetles, Crickets, Fleas, &c.

Sole Proprietor—HENRY J. PRATT (late SIDDALL), Pharmaceutical Chemist, YORK.

## BATTLE'S VERMIN KILLER.

{ Mice eat it readily, and Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction. Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs. Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

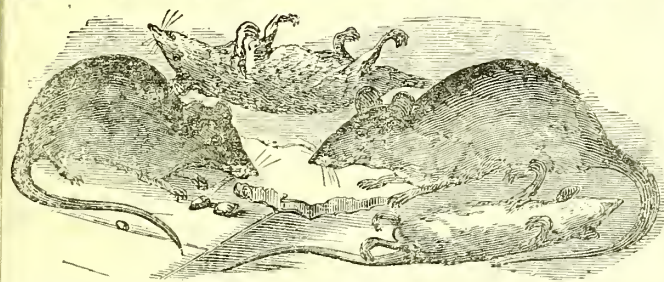
From Mr. THOMAS COLTON, Agent for Selby. A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet. From Mr. EDWARD STURDY, Flemington Mills. I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets. Leeds, November 6th 1857. I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS. THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.



## SAVARESSE'S CAPSULES

Of membrane, each containing 10 drops Purest Yellow

## SANDAL WOOD OIL.

The efficacy of this valuable medicine is due to the absolute purity of the oil, and to the very gradual solubility of the membrane as compared with gelatine. (These may advantageously alternate with SAVARESSE'S CAPSULES OF BALSAM COPAIVA.) Box (24 Caps.) 4s. 6d. Full Directions. All Chemists.

## HANDSOME CHEMIST'S SHOP FITTED COMPLETE

INCLUDING GLASS SHOW CASES.

GOLD-LABELLED SHOP BOTTLES, JARS, &c.,

For £75.

LISTS ON APPLICATION

An Experienced Gold Label Writer, Specie Jar Painter, Embosser, &c., engaged on the premises, and sent to all parts of the Kingdom. Every description of ornamental writing done, &c., cheaper than any other house.

## LLOYD RAYNER,

MEDICAL AND GENERAL SHOP FITTER,

SHOP FRONT BUILDER,

SHOW CASE MAKER, FIXTURE DEALER,

AND MEDICAL LABELLER.

SHOW ROOMS AND OFFICES:

333 Kingsland Road.

FACTORIES:

2 Downham Road, Kingsland, and Whitmore Road, Hoxton, London, N.

## 100 Rats destroyed for a Shilling by BARBER'S PHOSPHOR PASTE.

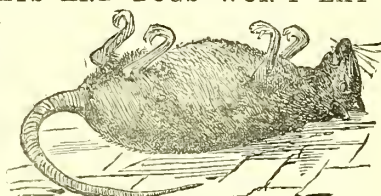
WRAPPED NEATLY FOR THE COUNTER.

You would never sell any other if you were desirous of pleasing your Customers.

CATS AND DOGS WON'T EAT IT.

Kills Rats, Beetles, &c.

THE DEAD VERMIN DRY UP WITHOUT SMELL.



Guaranteed the best destroying Paste in the world.

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

## BARBER'S VERMIN KILLER.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

Testimonial from Her Majesty's Ratcatcher.

"Hampton, Middlesex, May 26th, 1870.—I have been more than forty years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin, and after trying all the rat poisons which I have heard of, I now use BARBER'S PHOSPHOR PASTE and VERMIN KILLER, with which alone I am able to keep these ancient palaces and national works free from vermin. (Signed) CHARLES SHONES."

WORKS, SALISBURY: ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

## Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

PURE LEICESTERSHIRE LEAF LARD, especially prepared for Pharmaceutical use, in 10-lb. air-tight tins, 6d. per lb.; also in 1, 2 and 3 cwt. casks, 42s. per cwt.; slightly tinged lard for sheep and cattle ointment, 37s. per cwt.; finest lard oil, 3s. 9d. per gallon; fine neatfoot oil, 4s. per gallon; Cooper's "Excelsior" machine oil, 2s. 7d. per gallon; an excellent lubricant for light machinery, 2s. per gallon; dark lubricant, 1s. 10d. per gallon. The Trade only supplied. Apply, J. Cooper, Lard and Oil Merchant, Church Gate, Leicester.



# MEDICATED PAPERS



TRADE MARK.

TRADE MARK.

We have just landed two shipments of "Mortimer's Bromo" and "Gayetty's" Paper, and beg to subjoin prices.

171a &amp; 171b ALDERSGATE STREET, E.C.

LYNCH &amp; CO.

## MORTIMER'S BROMO PAPER, for Water Closet.

In Cases containing 50 Packets of 1,000 Sheets ... .. 65s. per Case.

" " 50 " 500 " ... .. 46s. "

GAYETTY'S PAPER. In Cases containing 50 Packets of 500 Sheets ... .. 68s. "

NET CASH.

# SEABURY & JOHNSON'S INDIARUBBER POROUS PLASTERS.

LYNCH & CO. have pleasure to subjoin their Cash Prices, and solicit Orders:—

*Seabury & Johnson's Medicated Indiarubber Porous Plasters:—*

Size, 7½ × 5 in. 2 doz. in box.	PER DOZ. NET.			PER DOZ. NET.				
	£	s.	d.	£	s.	d.		
Aconite ... ..	0	4	3	Iron ... ..	1	3	6	
Aconite and Belladonna ... ..	0	5	3	Mercurial ... ..	1	13	6	
Arnica ... ..	0	3	4	Opium, B.P. ... ..	1	18	6	
Belladonna ... ..	0	3	10	Witch Hazel ... ..	1	13	6	
Benson's Capsicne ... ..	0	7	0	Surgeons' Rubber Adhesive—				
Capsicum ... ..	0	4	3	Cotton, plain or porous, 7 in. wide,				
Galbanum, B.P. ... ..	0	4	3	1 yd. lengths ... ..	0	15	0	
Iron ... ..	0	3	4	Twilled linen, plain, 6 in. wide, 1 yd.				
Opium ... ..	0	5	9	lengths ... ..	1	14	0	
Pitch Burgundy, B.P. ... ..	0	3	4	Surgeons' Isinglass—				
Poor Man's ... ..	0	3	4	Cotton, 11½ in. wide, 1 yd. lengths ...	0	13	0	
Strengthening ... ..	0	2	8	" " " 5 yd. lengths ...	2	12	6	
Warming ... ..	0	4	3	Bunion Plasters, 6 in box ... ..	0	5	3	
Witch Hazel ... ..	0	5	9	Corn Plasters, 12 in box ... ..	0	5	3	
Porous, 1 yd. lengths, 7 in. wide.				Mustard Plasters, 3 in pkt. ... ..	6d.	0	2	7
Belladonna ... ..	1	7	0	" " " 6 in pkt. ... ..	1/-	0	5	3
Capsicum ... ..	1	7	0	" " " 10 in box ... ..	1/6	0	8	9
Porous, 5 yd. lengths, 5 in. wide.				" " " 6 in. wide, ½ yd. lengths	0	5	3	
Belladonna ... ..	4	9	0	" " " 6 " " 1 yd. lengths	0	8	9	
Capsicum ... ..	4	19	0	Court Plasters, silk, 6 in. wide, 1 yd.				
Strengthening ... ..	3	5	6	lengths. Black, Flesh-colour and	1	1	0	
Porous, 1 yd. lengths, 5 in. wide.				White ... ..				
Strengthening ... ..	0	15	0	In Fancy Wood Cases, tricoloured, 1/-	0	6	6	
Non-porous, 1 yd. lengths, 7 in. wide.				Arnica, Gelatine Cases " 1/-	0	6	0	
Aconite ... ..	1	3	6	Balsamic, Cased " 2d.	0	0	10	
Arnica ... ..	1	3	6	Centennial Cased, tricoloured, 6d.	0	3	0	
Belladonna, B.P. ... ..	1	3	6	Elegant Envelopes " 6d.	0	2	8	
Blister, B.P. ... ..	1	3	6	Golden Eagle, Wrappers, Black, Flesh-				
Capsicum ... ..	1	3	6	colour, and White, 3d. ... ..	0	1	9	
				One Penny, Envelopes, Black, Flesh-				
				colour, and White ... ..	0	0	3½	

## LYNCH & CO.,

171a and 171b ALDERSGATE ST., LONDON, E.C.



# JAHNCKE'S WAX-VESTAS

OF THE FINEST QUALITY,

IN NEW PATENT METAL BOXES,

UNIVERSALLY PATENTED.

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The Greatest Invention in Box-Making of the Age.  
Perfectly Round Corners in Square Boxes.

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**RETAILING AT ONE PENNY.**

*Orders through Wholesale Houses.*

---

**ERNST JAHNCKE,**

Patentee,

33 ST. PAUL'S ROAD, CANONBURY, N.



# W. H. BAILEY & SON, 16 OXFORD STREET, LONDON, MANUFACTURERS.



FIG. 1.

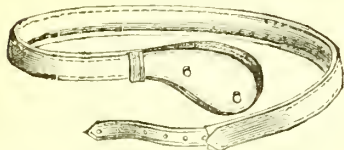


FIG. 4.

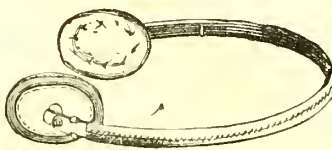
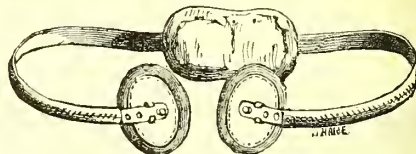


FIG. 5.



## TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
" " with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
" " double, Fig. 5	"	3 0 0
Moc-Main Lever, single	each	0 8 0
" " double	"	0 13 6
Cole's Expired Patent, single	"	0 5 6
" " double	"	0 10 6
Scrotal Trusses, basil and chamois or moleskin, single	"	0 4 0
" " double	"	0 7 0

## SUPERIOR TRUSSES.

Circular Trusses, narrow springs, covered in basil and lined with red skiver, single	per doz.	1 7 0
Ditto ditto ditto double	"	2 2 0
Circular Trusses, covered in red roan and chamois, single	"	1 16 0
" " double	"	2 8 0
" " narrow springs, covered in morocco and kid, best quality, beautifully finished, single	each	0 5 0
Ditto ditto ditto double	"	0 7 6
Salmon & Ody's Expired Patent, covered in roan, best polished springs, stitched with silk, single	each	0 4 0

Salmon & Ody's Expired Patent, covered in roan, best polished springs, stitched with silk, double	each	£0 8 0
Moc-Main Lever Trusses, covered in calf or morocco, single	"	0 12 6
" " double	"	0 17 0
Scrotal Trusses, covered in morocco or calf and doc, single	"	0 10 0
" " double	"	0 15 0

## UMBILICAL TRUSSES.

UMBILICAL TRUSSES, plain, in basil	each	0 7 6
" " in red roan	"	0 10 6
" " on Salmon & Ody's principle, in basil	"	0 9 6
" " in cream roan	"	0 12 6
Trusses for Prolapsus Ani et Uteri—Prolapsus Ani Truss	"	1 1 0
" " Uteri	"	0 13 0

## W. H. BAILEY & SON'S SPECIALITIES.

Improved Imperceptible Trusses, covered in morocco and silk, very strong and very light, entire weight under 3 ozs., single, each	"	0 7 6
Ditto ditto ditto double	"	0 15 0
Improved Imperceptible Circular Trusses, in morocco, with sliding heads, single	each	0 7 6
Ditto ditto ditto double	"	0 15 0
Improved Umbilical Truss, covered in morocco and silk. The pad is attached to the springs by hinges, which compensate for the movements of the body. It is the only Umbilical Truss that can be worn with perfect ease	each	1 5 0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agents, Messrs. Barclay & Sons, 95 Farringdon Street.

BY H.M.'S ROYAL

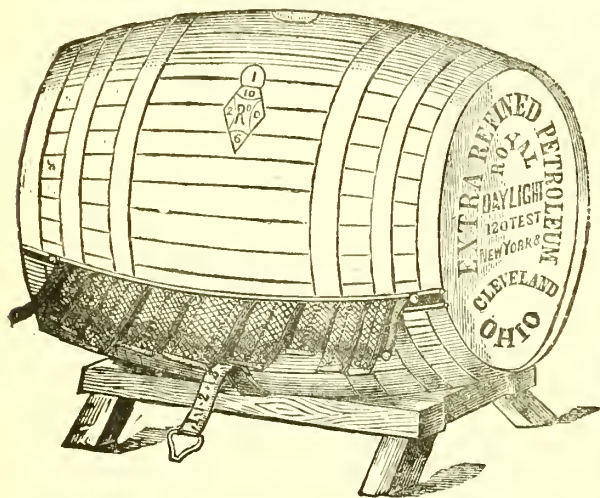


LETTERS PATENT.

# TUPHOLME'S PATENT SAFETY APPARATUS,

For Drawing off and Measuring Petroleum and other Inflammable Liquids.

THE PATENT MEASURE CAN BE STAMPED.



ILLUSTRATED PRICE LIST  
POST FREE.

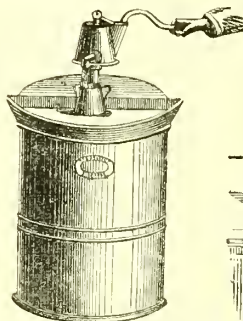


Fig. 6.—An improved Oil Cistern and Pump, suitable for any oils. The Pump lifts out; will go in bung-hole of barrel to fill cistern. Holds 40 gallons. Price, 37/6; if with 50 gallon tank, 5/extra. Height, including pump, 43 in.; diameter, 23 in. Useful Oil Pump, 12/6.

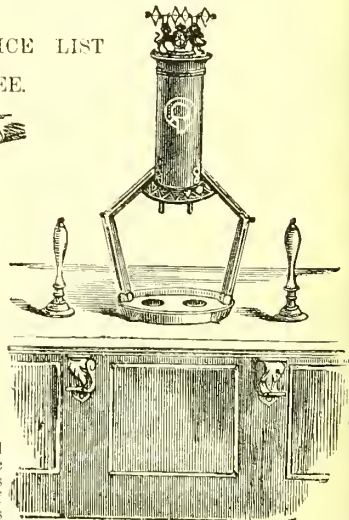


Fig. 3.—Measure fixed on Counter, which can be worked by force pump or beer pull, or the liquid be placed at an elevation. Single, 42/6; Double, 57/6. Height, 34 in.

No. 5.—Tupholme's Registered Counter Lamp Wick Holder represents a barrel of Royal Daylight Petroleum, inside fitted for eleven rolls of lamp cotton, including every size. Attached is a strong tape measure which instantly springs back when not in use.

Size 10½ by 9½ in. Price 12s. 6d.

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*A Profitable Addition to a Druggist's Business.*

# THE NEW DISCOVERY.

TRADE



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## NUBIAN WATERPROOF BLACKING

*Is an Oily Liquid Preparation, entirely free from Acid.*

Will NOT INJURE the Leather; gives a PERMANENT POLISH of great brilliancy (without brushing), which does not rub off or soil the clothing; is Waterproof; and through RAIN, SNOW, and MUD will last a Week.

*Mud when dry may be brushed off with a stiff brush, or may be washed off, and the polish will remain the same.*

### NUBIAN BLACKING

Is suitable for LADIES' and GENTLEMEN'S BOOTS and SHOES of every description; also BELTS, PURSES, and TRAVELLING BAGS, HARNESS, MILITARY ACCOUTREMENTS, &c.

Easily applied with Sponge attached to the Cork, and should NOT be used more than once or twice a week.

THE DRUG TRADE SUPPLIED BY

## S. M. BURROUGHS & CO.,

No. 8 Snow Hill, London, E.C.

The Leather Trade supplied by The Blake & Goodyear Boot and Shoe Machinery Co., No. 1 Worship St., Finsbury, London.



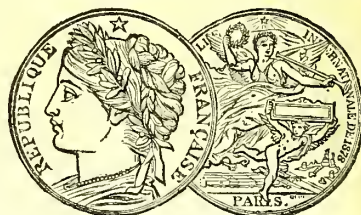


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## "A 1" COD LIVER OIL.

The A 1 Oil, unlike other samples, contains only a small amount of indigestible matter (solid fats), and a larger proportion of the special constituents of Cod Liver Oil, as is shown by the Table below, which gives the chemical composition, as demonstrated by analysis, of the kinds most frequently sold:—



	Oleic Acid.	Cetyllic and Stearic Acids.	Volatile Acids, Glycerine, Iodine, Bromine, Phosphorus, &c.
Pale Oil .. .. .	83.4	12.6	4.0
Newfoundland Oil .. .. .	83.6	13.2	3.2
<b>A 1 Oil</b> .. .. .	<b>86.3</b>	<b>9.1</b>	<b>4.6</b>
Pale Brown Oil .. .. .	85.0	11.3	3.7
Ditto (reddish) .. .. .	84.5	11.7	3.8

9s. per Gallon in Winchester Quarts; 8s. 9d. per Gallon by the 25-Gallon Cask.

S. B. & B. supply samples and Circulars Free of Charge to the Trade for Medical Distribution, also Retail Circulars with name and Address of Customers.

**SOUTHALL BROS. & BARCLAY, Manufacturing Chemists Birmingham.**

## DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.  
Does not corrode Steel Pens.  
Dries rapidly on the Paper.  
Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

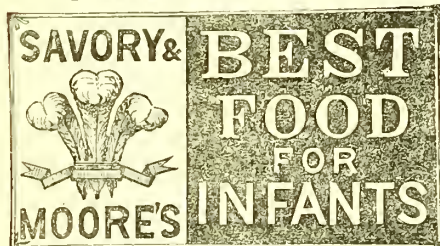
In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS & SON, 157 Queen Victoria Street, London, E.C.; F. NEWBERRY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; JONES and CO., 98 Southwark Street; WM. MATHER, London and Manchester; and AYRTON and SAUNDERS, Duke Street, Liverpool.

**BEWLEY & DRAPER, Limited, DUBLIN.**

See "CHEMIST AND DRUGGIST," December 15th, 1874.

## SAVORY & MOORE'S SPECIALITIES.



Used in the Royal Nurseries of England and Russia,

AND POSSESSING EVERY REQUIREMENT NECESSARY IN A DIET FOR CHILDREN BROUGHT UP WHOLLY OR PARTIALLY BY HAND.

Containing the highest amount of nourishment in the most digestible and convenient form.

THE MOST PERFECT SUBSTITUTE FOR HEALTHY MOTHER'S MILK.

N.B.—This Food has only the sweetness of natural healthy milk.

Tins, 1s., 2s., 5s., and 10s.

## MEDICATED GELATINE (Patent).

### LAMELS FOR INTERNAL ADMINISTRATION,

Consisting of thin sheets, of uniform thickness, accurately divided into squares by raised lines, each square containing an exact dose of the Medicine with which the sheet is impregnated.

Issued in sheets, each consisting of 14 squares. Price 1s. 9d. per sheet.—The Lamels are TASTELESS when swallowed quickly with a little cold water.

### THE REMEDIES FOR HYPODERMIC INJECTION

Consist of Small Discs (SQUARE), impregnated with Alkaloids, &c., and are put up in small boxes, each containing 25 discs, price 2s. 6d.

The chief features of these Discs are their instant solubility, by which hypodermic solutions can be immediately obtained of uniform and reliable strength; they keep good for an unlimited period in their dry state, and are extremely portable.

### THE OPHTHALMIC REMEDIES

Comprise Minute ROUND Discs impregnated with a definite proportion of Alkaloids, &c., and are issued in small Tubes, each containing 100 Discs, 2s. 6d.

"The little round Discs of soft Gelatine have the advantage of slowly softening and dissolving. The Atropine, or other medicament, gradually dissolves out, and is thus placed under the most favourable circumstances for absorption. Hence much smaller doses serve to produce a marked effect, by this form of application, than when drops are introduced."

### BLISTERING GELATINE, OR LAMELLÆ CANTHARIDIS.

The most elegant, efficacious, and convenient mode of Blistering. Tins, 1s. 3d.

N.B.—A List of the whole series of Medicated Gelatine Preparations will be forwarded post free on application.

**SAVORY & MOORE, 143 New Bond Street, LONDON, W.**

AND ALL CHEMISTS THROUGHOUT THE WORLD.





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Published on the 15th of each Month.

## TWENTY-FIRST YEAR OF PUBLICATION.

Subscription, 10s. per year, payable in advance;  
commencing from any date.

Post free to every country in the world. Single Copies, 1s. each.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

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We have to announce that as Easter Monday will fall on April 14, our office will be closed on that day, and we shall not be able to receive any advertisements for our April number which arrive later than Saturday, April 12.

Representatives of the Chemists' Trade Association interviewed the Members of Parliament who have brought forward amendments in the Sale of Food and Drugs Act, with a view of getting that Act amended in one or two other particulars. Messrs. Anderson, Whitwell, and Taylor, the M.P.'s referred to, recognised the justice of the modifications suggested, and promised to bring them before the Select Committee to which their Bill has been relegated.

The response to the appeal put forward by the Chemists and Druggists' Trade Association last year for a special fund to enable them to continue their efforts to defend the trade has been responded to by contributions amounting in all to over 1,600*l*. A list of the donors of 1*l*. and upwards is printed among our advertisements.

The Executive Committee of the Association, as will be seen from the report, have resolved not to interfere in the election of the Council of the Pharmaceutical Society, but several members expressed a desire that candidates would publish addresses indicating their views on pharmaceutical politics.

A proposal was made by Mr. Robbins at the last Pharmaceutical Council, that the feeling of the members in regard

to the admission of women to the Society should be ascertained by circular. It is much to be regretted that this sensible proposition was not accepted. Much time has been wasted over this trifling matter for several years past, to the hindrance of much more serious matters.

The unanimity which apparently existed in the Pharmaceutical Council in reference to the improvement of the Pharmacy Act was broken as soon as a proposition to take action was suggested. Messrs. Sandford and Hills think the Act as it stands is so nearly perfect that further amendment is not desirable, while Mr. Fraser considers that the evils from which pharmacy suffers are due to what little legislation we have, and he, consequently, protests against any more. The latter gentleman sends us a letter, in which he explains, or perhaps we should rather say elaborates, his views on pharmaceutical politics.

Three Medical Bills are now before Parliament. One, introduced by the Duke of Richmond, proposes to make the establishment of conjoint examination boards for England, Scotland, and Ireland compulsory. Two Bills have been brought forward in the House of Commons, one by Dr. Lush, Sir Trevor Lawrence, and Sir Joseph McKenna, and the other by Mr. Arthur Mills, Mr. Childers, and Mr. Goldney, both having the object of giving direct representation on the Medical Council to the general practitioners throughout the country. Both the Government Bill and that of Mr. Mills propose to repeal (among other sections) "so much of section 20 as relates to any person acting or practising as an apothecary."

The Government Bankruptcy Bill seems calculated to amend, if not to perfect, the bankruptcy legislation of the country. The chief features of it are that a Chief Judge in Bankruptcy will be appointed, that liquidation must be agreed upon, not by resolution at a meeting called by the debtor where he please, but by a signed deed assented to by an actual majority of the creditors, and that the Court shall exercise a distinct control over the actions of the trustee.

A new Patent Bill has been introduced by the Attorney-General, which will make unopposed patents cheaper than they now are, will extend provisional protection from six to twelve months, will make a patent extend for 21 instead of 14 years, with periodic payments if it is desired to keep it in force, and will give facilities for the examination of patents which do not now exist.

The Chemists' Ball Committee held a meeting on February 24 to wind-up the business connected with the recent ball. The sum of 30 guineas from the balance in hand was presented to the Benevolent Fund of the Pharmaceutical Society. Mr. Arthur L. Savory was also complimented for his efficient superintendence of all the arrangements.

Annatto has formed the subject of a trial at Northwich under the Sale of Food and Drugs Act, Mr. Carter Bell, of Manchester, being the probable author of the prosecution. That gentleman found it impossible, however, to prove that annatto was either a food or a drug, and the magistrates dismissed the case.

Last month we published an article on "Rashes Produced by Drugs," by M.R.C.S. We now print one on the "Simple Treatment of Recent Wounds," from the same pen. We shall probably be able to continue this series of medical and surgical articles, written expressly for the chemist and druggist.

On Wednesday, March 19, Professor Bentley will deliver a lecture on "The Life of the Plant" in the theatre, at 17 Bloomsbury Square. Great advances have recently been made in the science and philosophy of this subject, and we anticipate a very interesting lecture.

# CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S.

A WELL-KNOWN mineral will form the subject of the next exercise in Qualitative Analysis. It is to be submitted to a systematic examination, so as to detect accidental impurities as well as its essential constituents; the name of the mineral is to be ascertained, and a detailed account of the analysis given.

Students who wish to compete should send us their names and addresses before the 20th inst. Samples of the mineral will be forwarded on the 25th.

Students' reports will be received up to April 15.

## GYPSUM.

The mineral distributed for analysis in January was common gypsum, containing in addition to its normal constituents—calcium, water, and the sulphuric radical—traces of iron, magnesium, and chlorine.

This mineral is widely distributed in nature, and serves many useful purposes in the arts. Some varieties of the mineral are used for ornamental purposes, such as fibrous gypsum or satin spar, which may be cut into handsome beads, and granular gypsum or alabaster, which is much used in sculpture: it was this variety that formed the subject of our exercise. The term "alabaster" is, however, occasionally applied to some natural varieties of calcium carbonate, as well as sulphate. Gypsum is often found associated with a mineral which is identical with it in composition, except that it does not contain water. This natural form of calcium sulphate is called "anhydrite." When gypsum is heated its water of crystallisation is expelled, and if it has not been exposed to a temperature higher than about 200° C. it possesses the valuable property of re-combining with water, and hardening into a solid mass. This burnt gypsum is the plaster of Paris of commerce. Enormous quantities of this useful substance are produced annually by roasting gypsum in properly-constructed kilns, care being taken that it is not overheated and thus deprived of the property of setting when mixed with water. Unburnt gypsum, or plaster of Paris which has been hardened by mixing with water, will not "set" if reduced to powder and again mixed with water; but on adding certain salts, such as the sulphate, carbonate, or tartrate of potassium, it hardens once more. Plaster of Paris is also mixed with saline solutions for the purpose of obtaining a harder mass than can be obtained by the use of water alone: a solution of alum or borax gives very good results. Gypsum is used as a manure, but the manner in which it acts is not very well understood. The chemist ought to make himself familiar with the properties and reactions of gypsum, as it is largely used for fraudulent purposes: it is frequently found as an adulterant. Plaster of Paris violet powder is well known to every chemist, and the sale of it ought to be discouraged, as it is a most objectionable substitute for starch. There is one common use of plaster of Paris which is not very well known: it is hardened by successive heating and immersion in water, and then treated with solid paraffin or stearic acid, tinted with gamboge and dragon's blood, and made up into "meerschau" pipes. This artificial meerschau is much heavier than the real mineral, which is a hydrated magnesium silicate.

It is a common error with students to overlook water as a constituent of chemical compounds. When a quantitative analysis is made, of course such an omission would be very serious; in the present case, for example, water formed one-fifth of the substance by weight. It is obvious that any qualitative analysis which does not include such an important constituent is very much astray. The detection of water is a very simple operation, but it sometimes fails in consequence of the substance being heated in too large a tube, so that the air, which circulates with great rapidity, carries off the vapour that ought to be condensed; or the operator may incautiously warm the entire tube so much that the

vapour of water has no chance of condensing. The presence of water in a solid substance is generally made evident by the change which it undergoes when heated; some salts fuse in their water of crystallisation, others decrepitate—a small quantity present as an accidental impurity may give rise to this phenomenon. The loss of water is also frequently indicated by the substance swelling up, losing its transparency, or by change of colour when it is heated.

## PRIZES.

The First Prize for the best analysis has been awarded to R. H. PARKER, 338 Oxford Street, W.

The Second Prize has been awarded to HENRY SIEBERG 118 West Street, Glasgow.

## Marks Awarded for Analyses.

R. H. Parker	..	..	..	..	..	..	..	95
H. Sieberg	..	..	..	..	..	..	..	90
Gamba	..	..	..	..	..	..	..	85
Omega	..	..	..	..	..	..	..	80
Selenite	..	..	..	..	..	..	..	75
Aqua	..	..	..	..	..	..	..	75
Gypsum (Edinburgh)	..	..	..	..	..	..	..	75
F. T.	..	..	..	..	..	..	..	70
W. V. F.	..	..	..	..	..	..	..	65
H.	..	..	..	..	..	..	..	65
Servus	..	..	..	..	..	..	..	60
Trojan	..	..	..	..	..	..	..	55
Gypsum (J. H. F.)	..	..	..	..	..	..	..	40
T. G. Nicholson	..	..	..	..	..	..	..	10
Cetewayo	..	..	..	..	..	..	..	5
Persevere	..	..	..	..	..	..	..	0
J. B. F.	..	..	..	..	..	..	..	0

## TO CORRESPONDENTS.

*Prizes.*—The students to whom prizes are awarded are requested to write at once to the publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

\* \* All Communications should include the names and addresses of the writers.

*Omega.*—You must not confound plaster of Paris with gypsum: the former possesses the same composition as the mineral anhydrite.

*Aqua.*—The term selenite is generally applied to the variety of hydrated calcium sulphate, which exhibits distinct crystalline structure. Were this variety reduced to a coarse powder the fragments would still plainly show the crystalline structure which characterises it, whereas massive gypsum, such as you examined, breaks up into irregular fragments.

*Servus.*—You did not venture to name the substance; surely having discovered the composition there was no difficulty on this point!

*Gypsum (J. H. F.).*—Your statement that the substance did not undergo any change, and that no water was expelled when it was heated, is not in accordance with the conclusion that it was gypsum. When gypsum is heated in a tube closed at one end it loses its translucency, becomes white, and water is deposited in the cool part of the tube. You ought to repeat the experiment with gypsum or any hydrated salt, and find out why you failed.

*T. G. Nicholson.*—It would appear that you had not completely precipitated the calcium as carbonate, and consequently you precipitated calcium as well as magnesium on adding sodium phosphate. The possibility of such an error can be avoided by always adding to a filtrate a drop or two of the reagent with which the last precipitate was obtained, before proceeding to use a new reagent.

*Cetewayo.*—You may regard yourself as defeated with great slaughter. We could not detect any effervescence when the powder was treated with an acid. Try the effect of hydrochloric acid on calcium carbonate.

*J. B. F.*—You state "the metal is dolomite"! This reveals a melancholy state of affairs. Surely you are not serious in saying that dolomite is a metal. You never thought of making any search for the acids with which your metals were combined. If you practice the analysis of a few common substances of known composition you cannot fail to derive much benefit from the work.

*Persevere.*—We cannot for a moment suppose that you observed the reactions that you so minutely described, and it is sad to think that you could so completely deceive yourself. If you cannot be less biased in your experimental work there is little chance of satisfactory results. The notion that the substance was oxide of tin was too much for you.



## Pharmacalia.

### THE LATE SECRETARY OF THE SOCIETY OF ARTS.

MANY pharmacists will have seen with regret the announcement of the sudden death of Peter Le Neve Foster, who for 25 years was the secretary of the Society of Arts. The public papers have given already the details of his career, and there was a little more to say than is usually the case when the rather uneventful life, passed in the discharge of official duties, has to be recorded. By profession a barrister of the Middle Temple, he became connected with the establishment in the Adelphi in 1837. Subsequently he served upon the Council, and was treasurer during the eventful years of 1850-51. This period led to his success, and was in fact the turning-point on which his future prospects hung. The zealous officer of a very nebulous though respectable association had the skill to see that by linking the fortunes of the Society of Arts to those of a great national exhibition would be the surest way of bringing it to the fore, and of promoting its general recognition. Most certainly some propitious excitement was requisite to send a breath of animation into the proceedings of a society which bade fair to lapse into virtuous obscurity; and one strong claim that Mr. Foster has upon our recollection is that he did exactly the right thing at the right time. We are not given to indite moralising sentences, but there is really an opening here for a remark. The difference between success and failure seems in the main to be the power of utilising an opportunity, or the power of letting it slip. With all the earlier international exhibitions Mr. Foster was associated, and, through him, that society whose permanent secretary he became in 1853. In this capacity he was admirable, for the whole work in John Street was conducted under his personal superintendence, and there was no department in which he did not take an energetic interest.

Early in life Mr. Foster was fond of photography, and practised the art as an amateur; many of his scientific papers were upon this subject, and he became one of the founders of the Photographic Society. He was President of the Quekett Microscopical Society for one year, and he was a never-failing attendant at the meetings of the British Association.

It has been our pleasant task often to recommend the operations of the Society of Arts to those whose business lies in London. There are no lectures, apart from such as are specifically pharmaceutical, of more value to a pharmacist than those delivered throughout the season at the rooms in the Adelphi. The chemical section is devoted to direct practical information respecting chemistry as applied to industrial pursuits; we might also venture an opinion that the subjects treated upon, either at the ordinary meetings or at the geographical sections, meet the requirements of a man who may wish to be well informed, and kept abreast of current discovery. Omitting the Cantor Lectures, which are an endowed course, the whole series just mentioned have either originated or risen into importance under the late secretaryship of Mr. Foster.

In the vote of condolence passed by the Council on March 3, the following brief summary was made: "Since the time he (Mr. Foster) first assumed the post of secretary, the Society has quadrupled its numbers; its income has increased; its sphere of usefulness has proportionately enlarged; while, from his assiduity in the performance of his duties and his geniality and kindness of manner, he gained the respect and admiration of a large circle of friends."

### PALM OIL.

A GENTLEMAN who has lately returned from the West Coast of Africa has supplied the following information relating to palm oil, some of which may not be familiar to the reader:—On the crown of the palm grows the fruit. This consists of a large, pithy, egg-shaped gourd, having its outer surface surrounded and studded with nuts. These nuts often exceed 200 on a single fruit, and each consists of a kernel enclosed in an oily fibrous envelope a quarter of an inch thick, being together the size of a small walnut. When ripe the fibrous covering is externally of a reddish black, but internally a fine bright yellow. The seed within is black, the size of a small filbert. To prepare the palm oil which is contained in the fibrous envelope, the seed is first gently boiled to loosen the husk, then pounded and bruised by manual labour. Then the kernels being picked out the bruised unctuous fibre is put into a bag and pressed, the palm oil exuding. This is known commercially as the *best oil*. A small quantity of *very* fine select oil is made by expression without heat, known as "cold drawn." Oil of the second quality is prepared by boiling the half-exhausted fibre, and skimming off the oil as it rises to the surface. Palm oil is known only in Africa as a thick fluid, and never "sets" till it reaches a colder climate. The black kernels, or nuts, are sent to England, where, by pressure, they are made to produce a very fine white oil, known as "palm nut kernel oil."

### THE HANBURY MEDAL.

SOMETHING definite has been arranged respecting the gold medal to be biennially awarded in commemoration of the services rendered by the late Daniel Hanbury to pharmacy and materia medica. Not a large sum, but still a respectable one, considering the limitation put upon the amount of the subscriptions, has been obtained, and the committee of the Memorial Fund have reason to be satisfied that 465*l.* has been raised to promote an object which does not at present offer an extreme attraction to our members. The amount received must be taken more as a recognition of the merits of a distinguished pharmacologist of whom we were proud as a society, than as an indication of an awakened desire to follow in his footsteps. For many reasons the latter course is not to be expected, save in rare instances. The successful cultivation of materia medica, as a science, and as an absorbing pursuit, is fringed with many hindrances. Its first approach does not appeal to the imagination, and a severity of application is necessary to master its preliminary details, so that as a study it will never become popular. Added to which, excellence in this domain of science can only be attained by the union of many qualifications. We can boast (these observations are limited to pharmacists) of many admirable chemists: their number is annually on the increase. We can show a fair company of botanists who, as a class, devote themselves to their one fascinating pursuit; and we have also a few who take a genuine interest in the microscope. Now, to emerge beyond the threshold of materia medica, to be even familiar with the broad sweep of its investigations, demands the union of these three characters—the chemist, botanist, and microscopist. No one is likely thus to concentrate his energies into a given focus, unless, indeed, to high natural endowments he adds the more prosaic element of plodding perseverance.

This public acknowledgment of real worth, which has led to the creation of a new prize of honour in the shape of the Hanbury medal, will have an invaluable effect on a large body of students, many of whom may have no possible chance of gaining the reward. It will float in their minds, though the idea may never be formulated in words, that there

something intrinsically noble in all true effort; that in itself it is associated with honour and things honourable; nor does it so much matter in which direction effort tends so that its aim be upwards. The best of us are quite too apt to sink down occasionally into commonplace, and we need a visible reminder now and then of such examples as may render our apathy uncomfortable. The proposal that the memory of the late Daniel Hanbury should be in some way perpetuated is due to Mr. Thomas Greenish; the exact mode in which it seemed desirable that the project should be carried out is due to Professor Dragendorff. The plan is now definitely before the public. A gold medal (two, when the funds allow) is to be granted every two years "for high excellence in the prosecution or promotion of original research in the natural history and chemistry of drugs." The respective presidents of the Linnean, Chemical, and Pharmaceutical Societies, and of the British Pharmaceutical Conference, together with one pharmaceutical chemist, nominated by the two last presidents, are to be the arbiters of the award. We need hardly impress upon the members of our own body how thoroughly the intention of the proposition would be carried out should the honour fall to one engaged in the same pursuit as the *savant* in whose memory the medal has been struck.

#### LADY PHARMACISTS.

THE women's question still remains unsettled, and so it will continue as long as the Council does not see its way to direct its own affairs.

This question of the admission of women to the membership of the Society never can be decided until it is denuded of all sentimentality whatsoever. Has a woman, who though a woman, has been allowed by legal authority, not favour, to pass through those examinations which confer upon her the right to practise pharmacy as a trade, the right also to claim membership on equal terms with men, the foundation of whose claim is identical? Here crops up sentimentality.

We don't want petticoats at our meetings—a woman once a member may be elected on the Council. If the Society so vote, she may. A woman, once upon the Council, may be elected President. If the Board so vote, she may. We stand upon the justice of the case, and leave fancies and antipathies to those whom they concern. If there be any impropriety in the matter it rests with a woman's having been admitted into the druggists' trade, where alone she is likely to be placed in undesirable circumstances. The veto against her admission should have been given there. It is an unjust thing to refuse her an entrance into that Society whose respect she has taken every moral means to deserve, and whose fellowship she has taken every legal means to demand.

### The Pharmaceutical Council.

THE March meeting of the Council was held on the 5th inst. Messrs. Fairlie, Hanbury, and Mackay were the members absent.

A committee was appointed to arrange for a

#### CONVERSAZIONE

At the South Kensington Museum, with the stipulation that they were not to provide any refreshments.

It was reported that

#### THE ORPHAN CHILDREN

Of the late Mr. Isherwood, of Bristol, whose case was referred to in last month's report, had found homes. A chemist and druggist at Birmingham had offered to take the

eldest boy if 15*l.* a year were voted towards the cost of his education; a chemist and druggist at Goole had offered to take the girl if he and his wife liked her; a third gentleman had adopted the youngest child, and the other child would remain with the person with whom it was now living until of an age to be admitted to an asylum. Mr. Sandford asked whether the Council was able to grant 15*l.* a year for any length of time, and the President replied that the intention was that this Council should grant one 15*l.*, and recommend future councils to keep up the payment. Two grants of 30 guineas each were voted towards the purchase of votes for orphan asylum elections, Mr. Robbins and the Secretary respectively charging themselves with the business. Statistics concerning

#### THE BENEVOLENT FUND

Were submitted by the Secretary. From these it appeared that of 4,536 persons connected with the Society only 1,552 subscribed; their contributions amounting, in 1878, to 791*l.* 8*s.* 10*d.* Of other chemists and druggists on the register 733 were subscribers to the amount of 321*l.* 16*s.* 2*d.* Firms had subscribed 94*l.* 13*s.* 6*d.*, and the Chemists' Ball Committee had contributed 30 guineas. On the other side 414*l.* had been expended on 28 persons connected with the Society or related to such, while 17 registered chemists or their widows, not connected with the Society, had received 172*l.* during the year. Mr. Woolley thought more efforts should be made to induce non-subscribers to contribute, and the President believed there would be more subscribers if it were not for the impression that as money was being invested each year it was not really wanted. The expenditure now, however, had greatly increased, and money was really required.

Professor Attfield reported that there were now three

#### LADIES IN THE LABORATORY,

And he had stated to the President that no difficulties had arisen in regard to their accommodation. Among the gifts to the Society reported was a collection of

#### FORTY-SEVEN SALTS OF OPIUM ALKALOIDS,

From Messrs. Macfarlan & Co.

On the motion of Mr. Greenish, the Council resolved to accede to the request made by the Committee of the

#### HANBURY MEMORIAL FUND

That the Council should become trustees of the Fund.

For this fund 465*l.* had been collected, and after expenses had been paid and a die for a medal had been purchased, there would remain about 350*l.* for investment. This would produce from 10*l.* to 12*l.* a year at least, and the proposal is to award a gold medal biennially, "for high excellence in the prosecution or promotion of original research in the natural history and chemistry of drugs." The Presidents of the Chemical, the Linnean, and the Pharmaceutical Societies, and of the British Pharmaceutical Conference, with one pharmaceutical chemist to be nominated by the two last-named presidents, are to be invited to accept the office of adjudicators. The medal itself will be 2½ inches in diameter, with a likeness of Daniel Hanbury on one side, and the words "Daniel Hanbury, born 1825, died 1875," and on the obverse a space for the name of the recipient within a wreath, with the words "Awarded for Original Research in the Natural History and Chemistry of Drugs."

#### THE WEIGHTS AND MEASURES ACT.

The President read a letter which he had addressed to the President of the Medical Council, asking for his co-operation in urging on the Board of Trade the necessity of publishing an Order in Council, legalising the use of apothecaries' weight.

The General Purposes Committee had examined a diploma granted by

#### THE HOMŒOPATHIC PHARMACEUTIC ASSOCIATION,

And had submitted it to the solicitor for his advice.



The Committee also recommended that a petition should be presented to the House of Lords, praying for a

#### MODIFICATION OF THE 20TH CLAUSE OF THE APOTHECARIES ACT.

This suggestion, however, the Council refused to adopt. The name of a certain

DANIEL TUDOR WILLIAMS, OF ABERDARE,

Had recently been added to the register on the faith of representations to the effect that he had been in business before the passing of the Pharmacy Act in 1868. A long correspondence had ensued, and the local secretary of Aberdare had waited upon the committee in reference to the matter. Meanwhile, the medical practitioner who had signed the certificate without having a full knowledge of the circumstances had written to withdraw his declaration. The name was consequently erased.

A committee was appointed to watch the progress of the

#### MEDICAL ACT AMENDMENT BILL

Through Parliament.

#### LADY MEMBERS.

Mr. Robbins moved a resolution that a printed form should be sent with each voting paper to members, asking for an expression of opinion as to the admission of women to membership of the Society. He narrated the history of the various contests which had taken place on this subject, and said it was desirable the question should be settled. Those who took sufficient interest in the question either way would reply. The result of the voting would not be necessarily decisive, but whichever way the feeling of the members was expressed the Council would no doubt accept the suggestion. If it were said that this would be a bad precedent he replied that he should think such a course would be the best to adopt in reference to any question which had remained undecided for some years.

Mr. Bottle seconded the proposal.

The President did not like the principle of members voting on a subject without a discussion, but he would like to see this question settled.

Mr. Hampson was surprised that two reasonably Conservative councillors should propose such a revolutionary method of settling a question as this. It would be a dangerous precedent. He would much prefer that the question should ripen in the ordinary way.

Mr. Atkins objected to the proposal, because if the Council were to regard it as their business simply to register the votes of the members, they became delegates rather than independent legislators.

Mr. Savage thought if circulars were sent it would be important it should be made clear that it was not a question of admitting ladies to the trade, but merely of receiving them into the Society.

Mr. Shaw, Mr. Frazer, and Mr. Greenish having spoken against the motion, Mr. Robbins replied, and a vote was taken; four voted in favour of it, and nine against it.

#### PHARMACY ACT AMENDMENT.

Mr. Hampson proposed the appointment of Messrs. Betty, Bottle, Hampson, Robbins, Sandford, Savage, Williams, and Woolley as a committee, with power to obtain legal assistance, to draft into a Bill the recommendations of the Committee which had prepared amendments. Mr. Betty seconded. Mr. Sandford said he should decline to serve on such a committee. He could not support some of the amendments suggested, and he did not think there was enough to go to Parliament for. Mr. Frazer and Mr. Hills also expressed their dissent from the conclusions of the Committee, but all the other members voted for Mr. Hampson's resolution, which was accordingly carried.

Mr. Schacht next moved that an amendment of the 15th clause of the Pharmacy Act should be suggested, so as to include within its prohibition the assumption of the title *dispensing, practical, operative, allopathic, homœopathic, or botanical* chemist, druggist, or pharmacist. Mr. Schacht afterwards explained that his motion was directed especially

against homœopathic chemists. The President, Mr. Robbins, and Mr. Sandford opposed the motion on the ground that homœopathic chemists did not infringe on the ordinary trade of a chemist and druggist. Messrs. Woolley, Shaw & Betty spoke in favour of the motion; but ultimately an amendment was moved by Mr. Gostling and seconded by Mr. Sandford, to the effect that the Pharmacy Act be so far amended as to render it penal for an unregistered person to use any name, title, or description which should imply that he was registered under the Act.

#### THE PRELIMINARY EXAMINATION.

The Board of Examiners had recommended that the preliminary examination should include the translation of simple English sentences into Latin. A resolution was passed to give effect to this recommendation after December 31, 1879.

## The Chemists and Druggists' Trade Association.

THE meeting of the Executive Committee was held at the office of the Association, 23 Burlington Chambers, New Street, Birmingham, on March 6, 1879, at 1 P.M., Mr. S. U. Jones (Leamington), President, in the chair; Mr. Thomas Barclay (Birmingham), Vice-president. Present: Messrs. Andrews (London), Arblaster (Birmingham), Churchill (Birmingham), Cross (Shrewsbury), Greaves (Chesterfield), Greenish (London), Hampson (London), Holdsworth (Birmingham), Jervis (Sheffield), Kerr (Dundee), Mackenzie (Edinburgh), Shaw (Liverpool), Southall (Birmingham), and the Solicitor of the Association.

Communications were read from Messrs. Abraham, Delves, Earle, and Walker, regretting their inability to attend. The minutes of the previous meeting of the Executive were read and confirmed.

The report of the Law Committee was then read. The report included an announcement from the Solicitor of the Association, stating that in the case of the Apothecaries' Company *v.* Shepperley he had received from plaintiffs' agents, on January 27 last, a notice that the plaintiffs abandoned their appeal in that action. It also referred to the appointment of a deputation to wait upon those Members of Parliament who had charge of a Bill to amend the Sale of Food and Drugs Act, 1875, to suggest certain amendments in the Act, and to the very satisfactory result of the interview at the House of Commons.

It was moved by Mr. Arblaster, seconded by Mr. Cross, and unanimously resolved:—

That the report of the Law Committee be received, adopted, and entered on the minutes.

The report of the Finance Committee was then read. It included particulars of the general appeal to the trade for funds made by the Secretary in November last, the response to which was prompt and liberal, the sum of 800*l.* having been received within one month from the date of its issue.

It was moved by Mr. Greaves, seconded by Mr. Mackenzie, and unanimously resolved:—

That the report of the Finance Committee be received, adopted, and entered on the minutes.

The President inquired if the costs in the case of the Apothecaries' Company *v.* Shepperley had been received by the Association.

The Solicitor said that the taxed costs in that action had not yet been paid by the plaintiffs' agents.

Mr. Hampson said he had been given to understand that there were cases in which chemists and druggists had been sued by the Apothecaries' Company for alleged infringements of the Apothecaries Act, which had been tried in the County Courts, the judgment in which cases had been withheld pending the decision in Shepperley's case. He should be glad if the Solicitor could tell him if judgment had been delivered in these cases.

The Solicitor said that judgment had been withheld in only one case defended by the Association. This case was tried in the Birmingham County Court on July 2 and 3, 1877, and judgment would be delivered on the 13th inst. There

were other cases awaiting decision—one or two in the North of England and one in Cornwall—with which he was acquainted, and there might be others, the particulars of which were unknown to him.

The report of the Sub-committee appointed by the Executive to consider the advisability of the Association publishing a quarterly or monthly report of the proceedings of the Association for circulation among the members was then read. The report stated that the Committee, having carefully considered the whole question, was of opinion that the issue of such a report was desirable, but at present inexpedient.

It was moved by Mr. Greaves, seconded by Mr. Barclay, and unanimously resolved:—

That the report of the Sub-committee appointed to consider the advisability of publishing a quarterly or monthly report of the proceedings of the Association for circulation among the members be received, adopted, and entered on the minutes.

The report of the Sub-committee appointed to consider the advisability of the Association taking official action in the next election of the Pharmaceutical Council was then read. The report stated that, after mature consideration, the Sub-committee had decided that it was desirable that official action should be taken by the Association in the forthcoming election of the Pharmaceutical Council, by selecting from the list of persons nominated 14 names for recommendation to the members of the Association who were constituents of the Pharmaceutical Society, or by such other means as the Executive may deem expedient.

On the motion of Mr. Holdsworth, seconded by Mr. Arblaster, the report was received and ordered to be entered on the minutes.

Mr. Cross said he rose to move, "That the report of the Sub-committee appointed to consider the advisability of the Association taking official action in the next election of the Pharmaceutical Council be adopted." As one of the members of the Sub-committee who had framed the report, he would impress upon the Executive the fact that they had only considered the question from a general point of view. He contended that by keeping an active eye on the election of the Pharmaceutical Council they were rendering most valuable assistance, not merely to the general trade, but to the Pharmaceutical Society itself, for what could be more important to the constituents of that Society than that its Council should really reflect the feeling of its entire body; not merely a sectional representation, but one which should embrace the feeling of the Society as a whole? It had been said that country members did not know what was good for them: possibly they did not; nevertheless, it was natural that they should require to possess that knowledge, and to do so they naturally felt that they should have an opportunity of representing their condition on the Council, from whom they are bound by law to receive their instruction. He hardly thought that the constituents of the Society would much longer remain satisfied to receive their instructions from men who, however worthy they might be, represented, on that Council, exclusively one position, and one only, of their trading conditions. He thought it desirable, and consonant with the constitution of the Association, that they should calmly and dispassionately consider the merits of candidates for the Council, and exercise their discretion in recommending to their members such as they deemed fittest to represent the trade as a body. Was it their duty to take official action in the matter? He said, Yes, because their constituents expected it. Three out of four of them knew nothing of the views of the candidates who would seek their support at the next Council election; ought the members of the Executive to affect the same ignorance? He thought not, if they did their duty. Did the constitution of the Pharmaceutical Council affect trade interests? If they answered in the affirmative, then, as guardians of trading interests, it was their duty to watch over the election of that body. Of course, he should not like to see useful members turned out of the Council, but such was not likely to be the case. The fact that there was at present no burning question was fortunate, inasmuch as the Association would not be biased by any party feeling. He believed there was a difficulty in finding gentlemen who would best represent them, and if the Association could not find such gentlemen, they could use their influence in obtaining the services of those gentlemen to whom they were indebted for services in time past.

Mr. Jervis seconded the adoption of the report.

Mr. Shaw expressed his regret at the decision arrived at by the Sub-committee, and that a resolution proposing the adoption of its report had been moved and seconded. As one of the members of the Pharmaceutical Council who would have to appeal to the constituents of that Society for support at the next election, they would credit him with sincerity when he stated that he wished to be relieved of any official assistance that the Executive of the Trade Association could afford him. Simply asking their friends to support certain persons whose views and public character were generally known was a very different matter from a number of gentlemen taking official action in the election of another Society. The latter course would be extremely objectionable to those persons—to himself in particular—who occupied seats on the Council. The members should be left entirely free to select whom they chose, and he should consider it most improper for the Association to take official action. He regretted very much the motion had been brought forward, and thought such a course was at the present moment very inexpedient.

Mr. Hampson said the question was a very important one. His friend Mr. Shaw occupied a position on the Executive of both Societies, and he (Mr. Hampson) was extremely anxious that both Societies should live and prosper and do their specific work in a proper and advantageous manner; at the same time, if the Executive wanted to injure the Association, they would probably pass the resolution. By taking official action at the election they would arouse the opposition of some of the members; they would certainly lose a number of friends, and create many enemies, though that would not matter if there were something imminent—something burning—pressing upon them for immediate attention, and requiring immediate solution. He could quite understand that there might possibly be something in the future calling for immediate, prompt, and powerful action, but such was certainly not required at that time, as the mover of the resolution told them there was no "burning question" before them; besides, he felt sure that the Association was already exercising a beneficial influence amongst the members of that Council. He hoped, nevertheless, that all new candidates would give them the benefit of an address, so that the constituents might know the views of those who offered themselves for election. There had often been a difficulty at election time, and he thought it the absolute duty of every one who offered himself for election to state his views. He hoped the Executive would ask for that specifically.

Mr. Mackenzie maintained that the Pharmaceutical Society, in ignoring the interests of the trade, had brought about the necessity of the Association taking official action. The Association, he thought, would not be true to the trade if they did not carry the resolution. There were gentlemen who represented their views on the Council, but they were in the minority, and were overridden by the majority.

Mr. Greenish said his opinions had been previously expressed in that room. He thought there should be no interference in the formation of the Council, and especially at the present time, as there was no question of importance before the Council; if there were some great question, it might be just possible that the trade should take some course. For a member of the Council to take official action would be placing that member in a very peculiar position. He could not sit on that Executive while the Association was trying to move some gentlemen off the Council of the Pharmaceutical Society. If the resolution were carried, he should consider it his first duty to resign his official connection with the Association. About the issuing of addresses, he had always held addresses extremely cheap. He placed no reliance on them, and if they had no better means, let them go to the old way of taking the autographs of the persons proposed. He seriously hoped that any official action on the part of the Association would be negated.

Mr. Barclay said he had given a considerable amount of thought to the matter, as no doubt the whole of the members had done, and he could not see his way to support the resolution. So far as the success of candidates who would support trade interests at the next election was concerned they need have no fear whatever but that the candidates of the right calibre would be elected. He



thought the movement which the Association had made through the influence of Mr. Radley, at Bloomsbury Square, could not fail to have a beneficial effect. There had been such a shaking of dry bones that there was no fear whatever about the success of the right candidates if they came forward with the right programmes. He was very sorry Mr. Greenish objected to the issuing of an address.

Mr. Greenish: I do not object to that: I place no reliance on it.

Mr. Barclay, continuing, said he should be very sorry indeed if any candidate put forward an address on which reliance could not be placed. It was sometimes necessary to know the opinions of old members as well as new candidates on different questions, and for this reason it would surely be better for addresses to be issued. He was, however, convinced that the right men would come to the top without the Association taking official action.

Mr. Arblaster said he came to the meeting prepared to support the proposition of his friend, Mr. Cross, as he had done in Sub-committee, but after the remarks of Mr. Barclay he thought official action undesirable.

Mr. Greaves thought it would be inexpedient to adopt the report, though he should certainly have agreed to its presentation. At the same time he was of opinion that the Pharmaceutical Council would show their obstinacy to such an extent that the Association would be forced to take official action sooner or later. He was thoroughly in favour of election addresses.

Mr. Kerr said the members could use other than official action. He deprecated official action.

The President thought the passing of the resolution would do the Association mischief, as an idea would probably get abroad that the Association wished to coerce the Pharmaceutical Society.

Mr. Cross said he had obtained the permission of the seconder of the resolution to be allowed to withdraw it. He found that those in its favour were considerably over-weighted, and it would only be a waste of time to take a division, as they were in a hopeless minority.

Some considerable discussion then took place with regard to the Medical Bills before the Houses of Parliament, when it was moved by Mr. Southall, seconded by Mr. Churchill, and unanimously resolved:—

That the officers of the Association, together with the London members of the Executive, be appointed a Sub-committee for the purpose of watching the progress of the Medical Bills now before the Legislature, with power to take such action as they may deem necessary in regard to the same.

It was moved by Mr. Arblaster, seconded by Mr. Greaves, and unanimously resolved:—

That the third annual general meeting of the members of the Association be held in London on the day preceding the annual general meeting of the Pharmaceutical Society.

## The Pharmaceutical Society of Ireland.

AT the meeting of Council on March 5 the following business was transacted:—

Read, a letter from Professor Attfield, one of the hon. secretaries of the British Pharmaceutical Conference.

The Registrar was authorised to send Dr. Attfield a cheque for 1*l.* 10*s.*, being the price of the additional parts of Bentley and Trimen's work on "Medicinal Plants," a copy of which forms part of the books to be presented to this Society out of "Bell and Hill's Fund."

Read, a letter from Dr. A. H. Jacob, editor of the *Medical Press and Circular*, drawing the attention of the Council to the recent action of the Prisons Board, Ireland, in dismissing the apothecaries, or other compounders, of the Irish prisons, and imposing the duties previously performed by them on the prison surgeons. The consideration of Dr. Jacob's letter was postponed to the next meeting of Council.

Read, a letter from Mr. Robert Barklie, of Belfast, requesting the Council to recognise the instruction in practical chemistry given in the laboratory of the Working Men's Institute, Belfast.

The Registrar was instructed to write, asking for particulars as to the instruction given in the Institute.

Letters were read from the Medical Registrar of Trinity College, Dublin; the Secretary of the Royal College of Science for Ireland; and the Registrar of the Carmichael College of Medicine and Surgery, acknowledging the receipt of letters informing them that their institutions had been included in the list of those at which candidates for the licence of this Society could take instruction in practical chemistry.

Read, a letter from Mr. W. J. Madden, of Belfast, the consideration of which was postponed from last meeting.

Proposed by Mr. Hayes, seconded by Mr. Pring, and resolved

That the term "pharmaceutical chemist" in paragraph 2, page 65 of Calendar, may be accepted as pharmaceutical chemist of either Great Britain or Ireland.

The paragraph referred to runs as follows:—

"Candidates must also have been practically engaged in compounding and dispensing for at least two years, in the establishment of a pharmaceutical chemist or apothecary 'keeping open shop,' and produce a certificate from such pharmaceutical chemist or apothecary to that effect."

The Law Committee presented their report, which, on the motion of Mr. Brunner, seconded by Mr. Hayes, was received and adopted.

Samuel McKinney, Cookstown, Co. Tyrone, who was proposed and seconded at the February meeting by Mr. Hayes and the President, was elected a member.

## Provincial Reports.

### ABERDARE.

A ROYAL ROAD TO REGISTRATION.—The chemists of this locality having noticed that a shopkeeper in the town, who had formerly been a blacksmith, had obtained registration as a chemist and druggist, some inquiries were made, and it was found that his certificate had been signed by Mr. Evan Jones, surgeon, Aberdare, who seems to have had no personal knowledge that the person referred to had been in business before 1868, but had accepted the statement of the applicant in the matter. The local secretary (Mr. W. J. Thomas) having got the evidence together sent it to Bloomsbury Square, and afterwards attended a meeting of the General Purposes Committee of the Pharmaceutical Council. The surgeon having been communicated with had cancelled his certificate, and the result was that the name thus registered had been struck off the list.

### ABERDEEN.

LEAVES FROM A TRAVELLER'S NOTE-BOOK.—A lecture thus entitled was delivered to the Aberdeen Society of Chemists and Druggists on March 3 by Mr. W. L. Howie, of London. Mr. A. Strachan presided.

The lecturer at the outset apologised for giving what might be called a popular lecture, instead of a scientific paper, which his business engagements prevented him from undertaking, and gave a series of racy sketches illustrating the hotel life, character, and customs of commercial travellers. In alluding to the institutions connected with the body, he said that the Commercial Travellers' Schools near London were supported by voluntary contributions, and in 1878 accommodated 323 pupils, chiefly orphans, nearly 60 retiring annually, having received an excellent education; the Benevolent Institution last year pensioned 129 widows and incapacitated travellers, and the Christian Association had provided libraries of about 80 volumes each to nearly 100 hotels throughout the kingdom.

The lecturer then gave an account of a business visit to Canada and some of the cities of the Northern States, referring more particularly to matters connected with pharmacy. The general appearance of Canadian drug stores was, like the manners of the people, not very different from what we were familiar with in this country, and, though salaries and prices were higher, the rates of profit in the retail trade seemed much the same, while a continuous stream of assistants seemed to set from the cities, as well as the old country, to the newly-settled districts to start business on their own account.

He had paid a visit to the Chicago College of Pharmacy, which being at that time accommodated in some upstairs rooms in one of the principal thoroughfares, did not come up to English notions of what a "college" should be; yet undoubtedly it was possessed of great vigour and vitality, and accomplished a good work, publishing a capital journal (the *Pharmacist*) and giving courses of lectures, which Professors Bartlett and Ebert assured him were well attended.

The stores in the States were, as a rule, very handsomely fitted, the prevailing taste being white and gold, with plenty mirror and gilt glass, many being fitted with the glass "ice" labelled bottles first adopted in this country by Mr. Kinmont, of Glasgow; the whole having a very light and elegant appearance. In all stores the soda-water fountain was a conspicuous feature, that of Helmbold, New York, being a large octagonal structure surrounded by a handsome counter of coloured marble; and though best patronised in summer, Yankee ingenuity had invented "hot cream soda" for the "cold snap" of winter.

In the better stores 5c. worth was the minimum quantity sold, and the smallest dispensing charge was a "quarter," or about one shilling, which he had seen readily paid by ordinary workmen, who in these good times earned at least \$15 a week.

Several illustrations of the wonderfully fertile and unscrupulous genius displayed in advertising were given. Amongst others the large circus-bill-like placards representing Dr. Helmbold's celebrated "Hottentots gathering the Buchu Leaves," the leaves being represented more than twice the size of the negroes. The history of advertising went to prove that the average Yankee was easily gulled by a plausible story; it mattered little how false the premises might be, if only the thread of the argument were unbroken, and one finally deferred to the enlightened judgment of the reader. The Pharmacy Acts were referred to, and from what he could learn it did not appear that the examinations were too stringent.

In conclusion, in addressing more particularly the assistants, he said that with a traveller's excellent opportunities of observation, it had not escaped him that a drug business was not built up in a day, or by spasmodic effort, but by a patient, plodding, constant attention, from which he asked them to take courage. If only they would be earnest, success waited them. Success was found, on analysis, not to consist, as some supposed, of brilliant genius and exceptional gifts, but of such commonplace material as diligence, patience, truth, and reverence; and while holding that earnestness was a rare gift, they should remember it was one they could greatly develop. The best way to attain success was to deserve it; and to the earnest man there were few positions to which he might not successfully aspire.

The lecture was interspersed with humorous anecdote, and altogether was of a most racy and attractive character; and the different experiences being narrated with a good deal of quiet humour, it kept the large audience attentive and sympathetic listeners till the close.

After a vote of thanks had been proposed by Mr. William Sinclair, Upper Kirkgate, and seconded by Mr. R. Gibson, of Manchester, who corroborated and added to what Mr. Howie had related regarding America, a similar compliment was awarded to the chairman. The company then inspected an interesting series of American photographs, labels, and drug counter-advertising literature, as well as specimens of most of the American trade journals, maple sugar, and althæa root—decorated and cut small, as roots are frequently met with in the American market—which were exhibited in the room.

#### BRUMBY (WINTERTON).

**HORSES POISONED WITH ARSENIC.**—William Garrett was sentenced, at the Winterton Sessions on February 7, to a month's hard labour and to pay 3*l.* costs for administering arsenic to horses belonging to Mrs. Moss, his mistress. Two horses died on January 31 with symptoms of poisoning. The post-mortem examination confirmed the suspicion, and Dr. Couldsey, of Scunthorpe, found arsenic in the stomach and intestines. Nothing is reported of the way in which the arsenic was obtained, but it was proved that Garrett was the only person who fed the horses. The two that died were worth 80*l.*

#### BLAENAVON.

**SINGULAR DEATH.**—Mr. William Ellis, a contractor, aged 60, took a small quantity of gingerbeer on February 14. He was soon seized with pains and vomiting, which increased until he died. It was found that the bottle containing the beer had been used for petroleum and had not been washed out. An inquest was held at which it was stated that the lung had been found, on post mortem examination, to be considerably inflamed. The jury returned a verdict of "Death from misadventure." Only a very small quantity of petroleum can have been taken in this case. It is an unprecedented occurrence for decided physiological effects and death to result from such an insignificant dose. The verdict seems decidedly unsatisfactory.

#### BOSTON.

**DAMAGE TO A SHOP-FRONT.**—William Jessop and James Clarke, two boys, appeared before the magistrates in the Boston Borough Police Court on February 11. They came to answer for their misconduct in cutting their names on a stone pillar which formed part of the shop-front of Mr. W. R. Fowler, chemist, Market Place. Their parents paid for the damage, and the boys were discharged.

#### CARNFORTH.

**CASTOR OIL PILLS.**—Another prosecution concerning castor oil pills has been commenced under the Sale of Food and Drugs Act. The manager of the Carnforth branch of the Lancaster Co-operative Society was charged before the Carnforth magistrates last week with having sold pills not of the nature and substance demanded. Superintendent Moss went to the shop on January 28 and asked for some castor oil pills. He was supplied with a box wrapped in a paper on which were printed the words "Compound Castor Oil Pills." He paid one penny. Then he said he had bought the pills for the purpose of sending them to Dr. Campbell Brown, the county analyst, and offered to divide the pills into three parts and leave a third. The defendant said he did not require any of them as he had plenty more.

The following certificate had been received from the analyst:—

"I am of opinion that the sample is made up entirely of the following ingredients:—Rhubarb, aloes, ginger, some kind of pepper, probably cayenne, soap, saccharine matter, resinous matter; and that they contain no castor oil."

Mr. Byrom, who appeared for the defendant and for the makers of the pills, said he thought this was a case in which it was necessary that the analyst should be present to be cross-examined.

The Chairman pointed out that the analyst had certified that the pills did not contain castor oil.

Mr. Byrom said his intention was to prove that they did contain castor oil. It was a difficult subject to deal with, and he proposed to ask them to postpone the case until some convenient day, as it was desirable that the analyst should be present as well as his own chemist.

The Chairman: Are you prepared to bear the expense of bringing the analyst here?

Mr. Byrom: Oh, yes.

It was stated that the Bench would not be satisfied with any analysis except of the identical pills sold by defendant.

Mr. Byrom said it was of course a mistake on the part of defendant that he did not have the pills properly divided, as was suggested.

Eventually it was decided to adjourn the case for a fortnight.

#### COVENTRY.

**SURGEON FOUND GUILTY OF MANSLAUGHTER.**—We reported last month the case of Thomas Millerchip, who was committed for trial at the Warwick Assizes for the manslaughter of George Bostock (whose name is spelt also Bastock and Barstock). The relieving officer's order had been sent to him to attend Bostock, and 18 messages were sent by the family desiring his attendance, but the child died before he had been seen by Mr. Millerchip. In cross-examination it was elicited that the prisoner was dependent on his wife and a servant girl for the due delivery of mes-



sages left for him, and that the prisoner and his wife were not upon good terms, and the servant girl was discharged at once when the death of Bastock's child was made known, it being suggested for the defence that she was discharged because she had neglected to give the messages to the prisoner.—The jury found the prisoner guilty, but recommended him strongly to mercy on the ground of previous professional kindness.—Lord Coleridge sentenced him on February 20 to four months' hard labour, remarking that it was necessary to punish such serious neglect with severity. The *Daily Chronicle* of February 21 seems to consider this sentence not sufficiently severe.

#### DARLINGTON.

**SWEET NITRE IN COURT.**—At the Castle Eden Petty Sessions on February 22, four shopkeepers, John Pattison and Robert Harrison, both of South Wingate, and Joseph Walker and John Noble, of Wheatley Hill, were prosecuted for selling spirit of nitrous ether adulterated with water. The case against John Pattinson was gone into. Three ounces had been bought, and Mr. Edger, of Newcastle, the county analyst, certified that it had been adulterated with 23 per cent. of water, and that its properties were almost entirely lost.

The defendant gave evidence, from which it appeared he had had the sweet nitre in question in stock for a year and two months, during which time it had stood in his window exposed to light and heat. There was a label on the bottle bearing the inscription "900," in addition to its title, and he charged 3*d.* per ounce for it, the price it was generally sold at. He had, however, only once sold an ounce out of the quantity he had originally purchased.

Mr. Holmes, of the firm of Holmes & Richmond, tea dealers, jam merchants, &c., Darlington, stated that his firm supplied Pattinson with the sweet nitre, which they purchased from W. J. Bush & Co.'s distillery, London, and it was sold to Pattinson in the same condition they received it, and was labelled '900 specific gravity.

Mr. William Dodgshon, of the firm of Mandall, Dodgshon & Co., wholesale dealers, Stockton, who had supplied some of the other defendants with their sweet nitre, stated that he had been acquainted with that drug for 35 years, and there were three recognised qualities of sweet nitre sold at different prices, the price of the '900 being 3*d.*, the '850 4*d.*, and the '845 5*d.*

Mr. J. H. Jackson, registered chemist, Stockton, who had had 29 years' experience, gave similar evidence.

Mr. Wilkes, for the defence, contended that the authority of the British Pharmacopœia was not binding any more than in many other instances where commercial qualities were recognised.

The magistrates, however, found the case proved, and inflicted a fine of 5*s.*, with 17*s.* 6*d.* costs.

A similar fine was inflicted in two of the other cases, but a deduction of 2*s.* 6*d.* was made in Mr. Walker's case, as the analyst said his contained a fair amount of nitrous ether.

#### EDINBURGH.

##### EDINBURGH CHEMISTS' ASSISTANTS' ASSOCIATION.

THE fourth monthly meeting of this Association was held in the Pharmaceutical Society's Rooms (North British Branch), 119A George Street, on Friday evening, February 21, Mr. John Young, President, in the chair. Mr. Fisher read an essay on "Opium," in which he gave a description of the early history, cultivation, and preparation of the drug. The paper, which was a very interesting one, was criticised by the chairman, and the discussion was continued by Messrs. McLaren, Maben, and Aitken.

#### LINCOLN.

**THE SALE OF POISON.**—We reported on January 1 the trial of a horsekeeper for administering poison to horses. After conviction one of the magistrates said that the chemists who sold these stuffs to the men were twenty thousand times the worse offenders. A prosecution of the chemist concerned was, therefore, ordered, and on February 27 Mr. John Rumble, 174 High Street, was summoned for having on August 31 last sold to John Smith Rear a certain poison, namely, arsenic, which when sold was contained

in a wrapper which was not distinctly labelled with the name of the article, the word "poison," and the name and address of the seller. There was a further summons against defendant for neglecting to enter the transaction in a book kept for the purpose. The evidence was to the effect that Rear, the farm servant, went to Lincoln on August 31 last, and called at defendant's shop. He saw Mr. Rumble, and asked him, amongst other things, for some white mercury, telling him that he wanted it for his horses. Mr. Rumble supplied him with the article, and said he was to give the animals as much of it as he could lay on a sixpence three times a week. Defendant did not ask his name, nor in whose employ he was. He made no entry of the sale in witness's presence, nor did he ask him to sign his name in a book. Mr. Rumble did not know his name, though he thought he knew him by sight. Witness had been to the shop once before. The mercury was wrapped up separately in brown paper: there was no writing or label of any kind upon it. The witness was cross-examined by defendant, with a view of showing that the sale of the mercury took place upwards of six months since, in which case the summons would have fallen to the ground, as the Act requires that proceedings should be taken within six months. The witness was not positive as to the date being August 31; in fact, he could not say to a week or two, but he was confident that it was after harvest. The poison was afterwards buried in the field, but it was found by the police and sent to Dr. Graham, the county analyst, in London, who said that the tin he received contained about half-an-ounce of earthy matter, which he submitted to analysis for the purpose of detecting any metallic poison. He ascertained the presence of arsenious acid—white arsenic—in the proportion of 7.33 per cent. The residue effervesced with acids. This might be owing to the chalky nature of the soil, or to a mixture of the article before its sale. Cross-examined by defendant, witness said he had analysed impure sulphate of zinc, and had discovered minute traces of arsenic, but not in the proportion in which it was here found. Notice had been given to the defendant to produce his book containing a register of the sale of poisons. It was produced, and the defendant admitted that it contained no entry of the particular transaction. The defendant pleaded in the first place that, owing to the lapse of time, the prosecution was barred from taking any proceedings against him for selling so-called arsenious acid. He then went on to say that he had a distinct recollection of the witness Rear coming to his shop and asking for some butter of antimony, white mercury, and green copperas. Instead of giving him these things he supplied him with white copperas, or impure sulphate of zinc, mixed with carbonate of soda, which was an innocent substitute for the poison asked for, and extremely beneficial to horses. When he (defendant) was asked for these things, to avoid danger he substituted sulphate of zinc and carbonate of soda. Defendant contended that the evidence of Dr. Graham, who found not only traces of arsenious acid, but traces of alkali, which on analysis effervesced with acids, strengthened his case, because when the parcel left his shop it contained carbonate of soda and impure sulphate of zinc. Therefore, it required no entry in the books. Had the compound been sent out as white mercury mixed with the other, it would certainly have required to be entered, and would have been entered in his book.

The magistrates found that defendant had not fulfilled the requirements of the Pharmacy Act, by omitting to make an entry of the stuff he had sold to the witness Rear. As far as the other informations were concerned, for not properly labelling the stuff, they should not convict. They convicted only upon the summons for neglecting to make an entry of the transaction. The costs were exceedingly heavy, amounting to 8*l.* 12*s.*, and therefore they would only inflict the small fine of 8*s.*, making altogether 9*l.*, which he would have to pay. [The Mayor and ex-Mayor (both chemists) retired from the Bench during the hearing of this case.]

#### LEEDS.

**THE TRADE IN PATENT MEDICINES.**—The trade in Leeds has recently had to give attention to the question of the retail prices of patent medicines. As in various other towns, underselling has been commenced. The latest meeting of the trade was held on February 12, being convened

by circular signed jointly by the President of the Leeds Chemists' Association and the Local Secretary of the Pharmaceutical Society. There was a large attendance, the President of the Chemists' Association presiding. The first resolution affirmed it to be desirable to adopt a uniform standard of prices in the sale of patent medicines; and, further, that from the altered circumstances under which these are now purchased, and for other reasons, a material reduction in price should be made forthwith. An amendment declaring a general reduction in prices to be "uncalled for and suicidal" was negatived, and the original resolution was carried. A second resolution proposing the lowest scale of prices as follows: 13½*d.* articles at 10½*d.*; 2*s.* 9*d.* ditto, 2*s.* 3*d.*; 4*s.* 6*d.* ditto, 3*s.* 6*d.*; 11*s.* ditto, 9*s.*, was lost. The present position of the question in Leeds is that a considerable number of chemists are selling at the reduced prices just named.

#### LIVERPOOL.

**PROSECUTION UNDER THE WEIGHTS AND MEASURES ACT, 1879.**—Mr. Edward Rawlinson, farmer, Knowsley, was summoned at the Liverpool Police Court on February 18 for having sold potatoes by the 90 lb., a denomination which is not one of the imperial measures. The facts of the sale were not disputed, but it was contended that the Act of Parliament was complied with, as 90 lb. was a multiple of the standard lb., and in the present case the word "bushel" was not mentioned. The magistrate was of the same opinion, and dismissed the case.

THE Registered Chemists' Association of Liverpool will hold their annual dinner at Messrs. Fisk & Fairhurst's, Castle Street, on the 20th inst., at 6 P.M.

#### MIDDLESBOROUGH.

A MEETING of the Chemists' Association was held on February 18, Mr. Middleton, president, in the chair. After the transaction of local business the question "How to meet the present difficulty with respect to patent medicines?" was discussed, when the following resolution, proposed by Mr. J. Middleton and seconded by Mr. Harrington, was passed:—

That in consequence of the large quantity of poison sold under the protection of the patent medicine licence and stamp, viz., laudanum, chloral hydrate, prussic acid, chlorodyne, mercury, &c., &c., Parliament be petitioned to pass a short Act prohibiting the sale of patent medicines by anyone but registered chemists, except in country places where there is no chemist within a radius of two miles; and that there shall be no loss to the revenue, that chemists' licences be increased to 20*s.*

The secretary was requested to write to the committee of the Chemists' Defence Association, asking them to issue a circular to all local secretaries for signature by chemists, and for presentation through Members of Parliament.

#### NORTHWICH.

**ALLEGED ADULTERATION OF ANNATTO.**—At the Northwich Petty Sessions on February 25, before four magistrates, Mr. John Clough was summoned "for that he did, on January 3 last, unlawfully sell to one Benjamin Cooper, and to his prejudice, a certain drug, purporting to be brown annatto, which was not of the nature, substance, and quality of the article demanded." Mr. A. Fletcher defended. The purchase was proved by Superintendent Cooper, who said the defendant asked him which sort he wanted, stating that there were brown flag, black flag, and liquid annattos. He took an ounce of each, and told Mr. Clough he was going to have it analysed, and offered to leave a sealed portion with him. The offer was refused. Mr. J. Carter Bell, of Manchester, public analyst for the county of Chester, said he had analysed a sample of brown annatto received from Superintendent Cooper, and found it adulterated with upwards of 40 per cent. of mineral matter, such as lime, iron, alumina, &c.—Cross-examined by Mr. Fletcher: Annatto is made from a certain seed which comes from South America, the West Indies, Brazil, and Cayenne. Believed it comes in a pasty mass. Had never analysed annatto just as it came over, but knew from study what the composition of annatto ought to be. Would expect to find about 20 or 30 per cent. or more of colouring matter; could not say definitely the exact amount. Should not

expect to find any mineral constituents. There would be from 1 to 5 per cent. of ash, and he would allow for certain accidental impurities. Mr. Fletcher pressed witness to give details of his analysis, but he said he was only required to state whether the sample was adulterated or not. He estimated that the sample consisted of about 40 per cent. of organic matter, and was adulterated with at least 40 per cent. of mineral matter. He did not agree with Professor Redwood that annatto required the addition of another constituent to prevent it from becoming putrescent; nor did he agree with the Professor's statement that "much of the annatto, as imported into this country, is in such an imperfectly inspissated state that it cannot be kept for many months without undergoing decomposition, often becoming filled with maggots, and rendered wholly unfit for use." His opinion as a chemist was that annatto required no addition of any description to prevent decomposition. On being asked what annatto was used for, he said he believed it was employed to colour cheese and butter, but he could not say from his experience whether it was used for that purpose in the form submitted to him for analysis. He knew nothing of it except what he had gathered from books. He knew how he should use it; he knew that it was soluble.

It would simply be used as a colouring matter?—It would.

In point of fact, it is simply a dye?—Well, if you like to put it so.

Is it a drug?—It is a difficult thing to define. I call it an article of food myself.

A Magistrate: Is it used as a medicine?—Witness: I am not aware that it is.

Mr. Fletcher: It is not, sir; and that is one of the points of my case. (To witness) Is it in any Pharmacopœia that has come under your notice?—No.

Not in any authorised Pharmacopœia?—No.

Not as a drug?—No.

You say it is more likely to be an article of food?—That is how I define it.

Did you suggest that these samples of annatto should be collected?—I dare say I did; I saw going about large quantities of annatto, and of course it was my duty, if I thought it was adulterated, to suggest that samples should be taken.

Well, now, you say that it is only used, so far as you can gather, for colouring cheese or butter?—It is used for dyeing also.

Would you pronounce it an adulteration to put it in cheese?—That is another matter.

Well, I want your opinion.—If there was an addition of a large quantity of it to cheese I should pronounce it an adulteration.

So that the very use of it as an article of food constitutes adulteration?—If you look at the Act you will find it is allowed to slightly colour things for sale.

Do you mean to say that there is not something necessarily added to this annatto to make it strike as a dye?—We are not on the subject of dyes, please.

The Chairman thought it would be better if they kept to the analysis of the sample in question.

Mr. Fletcher submitted that this article was a dye, and was not adulterated with anything except what was necessary to make it strike its colour, and he therefore contended that he was entitled to put questions to the analyst upon that point. Of course, if it was not used as a drug there could be no case made out upon the summons.

Mr. Bell, in answer to a magistrate, said he had analysed other samples of annatto at the same time he examined this one. He found other matters in those, but in this case the impurities were very excessive.

Mr. Fletcher claimed that according to the evidence of the last witness annatto was neither an article of food nor a drug, and consequently it did not come within the provisions of the Act of Parliament. Neither Mr. Bell nor Mr. Cooper could show that it was a medicine for either internal or external use. The summons distinctly called it "a certain drug," and to those words the prosecution were bound; but their own witness stated that it was not in any Pharmacopœia, and that it could not by any possibility be styled a drug; and medical gentlemen would tell him that it was never used for medicinal purposes. He was at a loss



to know why a prosecution should be instituted for such an article as annatto. Mr. Clough had been in business many years, and he would tell them that annatto was only used for colouring purposes in a liquid form, and that the article which had been analysed was annatto peculiarly used for dyeing purposes, and for dyeing purposes only; he would also tell them that he had had a pound of it in stock since April, 1878, and during the whole of that period he had sold an ounce and a half, the purchaser being a saddler, who used it for the purpose of dyeing his leather.

The Chairman asked Mr. Fletcher if he could say whether or not annatto was used in that form for cheese-making?

Mr. Fletcher: Not now; it was used many years ago.

The Chairman: Is it used in any other parts of the country in the form in which it has now been analysed?

Mr. Fletcher: That would be impossible for us to state positively. All we know is that we never sell it in that form. What we sell is Fullwood's butter-colouring, and that is in a liquid form.

Another Magistrate: It is not a drug, but if it were used in the making of cheese it might be called an article of food.

Mr. Fletcher: It would not be an article of food then. It is only used by way of adulteration to colour it. The prosecution have the option of laying it as a drug or an article of food; they have laid it as a drug, but it has been shown that it is not a drug, and on that ground I say the case must be dismissed.

On the ground that it had not been proved that the annatto was either an article of food or a drug, the Bench dismissed the case.

#### OUGHTRIDGE (YORKSHIRE).

**ADULTERATED SWEET NITRE.**—On February 18, at the West Riding Court, William Hill, shopkeeper, Oughtridge, was fined 40s. and costs for selling adulterated sweet nitre. W. Butterworth, Inspector of Nuisances for the Wortley Sanitary Authority, proved the purchase of  $\frac{1}{4}$  lb. of nitre. A. H. Allen, F.C.S., county analyst, stated "that the sample was destitute of real nitrous ether, which formed a most important constituent of sweet spirit of nitre or sweet nitre of good quality. The sample would be useless as a remedy. It contained only 64 per cent. of real alcohol, which deficiency corresponded to a dilution of about five measures of sweet spirit of nitre of good quality with one of water.

#### REARSBY (LEICESTERSHIRE).

**HORSE POISONING.**—On being promised that if he confessed he should not be prosecuted, a waggoner acknowledged to Mr. Wood, his master, that he had given white hellebore to three of his horses. One of the animals died on February 15, and two others were not expected to recover. The powder had been bought of Mr. Stain, chemist and druggist, Syston, and was marked "poison." The promise of condonation has prevented all legal punishment of the waggoner.

#### ROTHERHAM.

**THE CASE OF WILLIAM BEATSON.**—A memorial to the Home Secretary on behalf of Mr. Beatson has been drawn up, and is in course of signature. The memorialists are inhabitants of Rotherham and neighbourhood, the Mayor, members of the Corporation, professional men, manufacturers, tradesmen, and others, and the memorial "Sheweth, that Mr. William Beatson, chemical manufacturer, of Rotherham, was convicted at the last Leeds Assizes of obtaining money by false pretences, and was sentenced to eighteen months' imprisonment with hard labour. That your memorialists bear testimony that for a long course of years, Mr. Beatson has borne an unblemished character, and has been held in high esteem by his fellow-townsmen, of all ranks and parties, as a man interfering not at all with public affairs, but devoted entirely to scientific pursuits and chemical investigations, and ranking high in his occupation as a manufacturing chemist, and as a man fitted neither by disposition nor habits for the financial management of a large concern, and likely to attach too high an estimate on the value of his premises and resources. That in the best judgment of your memorialists he had no intention of committing the wrong with which he has been charged. Your memorialists are sustained in these views by the fact that, within a few days after Mr. Beatson's committal, the sum

of over 300*l.* was spontaneously subscribed towards his defence by his fellow-townsmen. And, inasmuch as he is now in his 66th year, and is of feeble and delicate constitution, your memorialists humbly represent that the claims of justice and the interests of society would be sufficiently maintained by a mitigation of the sentence passed upon him." An address of condolence has also been presented to Mrs. Beatson.

#### SHEFFIELD.

**SERIOUS FIRE.**—On the evening of February 18 the son of Mrs. Ann Jepson, chemist and druggist, Cambridge Street, Sheffield, who is the manager of her business, was melting some resin over an open fire. The resin suddenly boiled over, set fire to Mr. Jepson's clothes, and ran over the floor, setting everything in a blaze. The two daughters escaped, one by jumping from a window in the first floor, the other by rushing through the flames. Mr. Jepson and one sister were severely burnt. The damage done was not large in amount, and is covered by insurance.

#### NOTES ON SOME OF THE DILUTED ACIDS OF THE PHARMACOPOEIA.

**C**OMMENT has frequently been made on the directions given in the Pharmacopoeia for the preparation of the dilute acids, and the complaint has not been wanting that in this respect the simplicity of the older Pharmacopoeias has been departed from. Probably a good deal of the uneasiness which has been created has, in the first instance, been caused simply by interference with old and easy habits. Nothing could well be simpler, or, in appearance, more irresponsible than the old plan of measure, shake, and set aside; and, therefore, anything more complicated, involving time and care and an ever-present sense of responsibility, might well be expected to awaken comment and even to a certain extent resentment. At the same time it must be confessed that it does look like a bit of ultra-refinement to direct that the measured acid shall be added to a certain quantity of water, and that, after a certain temperature has been arrived at, more water shall be added to make the whole measure a given quantity, when the very measure-glass used, or the mere act of measuring itself, must almost of necessity entail more serious error than any which can possibly arise from change of temperature in the act of mixing. Take the measure-glass for example generally in use, or the act of measuring, and on what authority can we say that either the one or the other is correct? Ten, 20, 50, or even more drops may be added to or taken from an ordinary 4 or 10 ounce measure-glass without enabling us to say that it is absolutely incorrect, and yet this implies, so far as the measuring of the acid is concerned, a variation in strength as great as, or probably greater than, any produced by the condensation or expansion resulting from the mixing of the liquids. This is by no means referred to in a spirit of petty fault-finding, but rather to bring out in contrast the alternative plan of the Pharmacopoeia, than which nothing could well be more simple or correct, namely, that of weighing the acid in a flask, and adding water to a mark on the neck of the flask at the proper temperature.

As there are probably those, however, who will still follow the old plan, there are one or two points in the making of the dilute acids of sufficient importance to justify more than a passing notice. In diluting hydrochloric acid, for example, if the acid be added to the water carefully, little by little, the temperature will not be raised many degrees—not more than 8° F.—and the actual condensation of the liquids will not be more than 1 part in 300. In other words the temperature is so little elevated that it can scarcely be said to affect the bulk of the liquid at all, whilst the condensation which takes place on the addition of the acid to the water is also infinitesimal, being only in the foregoing proportion of nearly 1 in 300. Practically, therefore, the proportions of the Pharmacopoeia of 8 ounces of acid by measure to 18½ ounces of water may be accepted as correct, seeing that the difference involved is less than half a fluid drachm.

In the case of nitric acid, on the other hand, the tempera-

ture is raised higher than with the hydrochloric acid, the thermometer indicating about 10° F. increase, whilst the actual condensation is 1 part in nearly 71½. The Pharmacopœia proportions of 6 fluid ounces of acid, and water to make 31 fluid ounces, will therefore be deficient by 189 drops, or about 3 fluid drachms, if the water is measured as 25 ounces previous to mixing. To bring this out more plainly, the formula might run thus:—Nitric acid, 6 fluid ounces; water, 75 ounces and 3 drachms; mix. With the flask, the condensation taking place in the process of mixing, the only allowance which requires to be made is that of expansion from increase of temperature, and this would not amount to more than 20 drops.

It is with sulphuric acid, however, that the most extreme results are obtained. On mixing this acid with the water the temperature is raised nearly 20° F., and the actual condensation, after the thermometer has fallen to the temperature of 60°, amounts to 1 in 45½. The Pharmacopœia allows for this condensation to the extent of half-an-ounce in the 84 ounces, the proportions ordered to be taken being 7 fluid ounces of the acid to 77 ounces of water. This would make 84 ounces but for the condensation, and the directions are therefore further given to add more water, to measure 83½ fluid ounces at 60° F. The Pharmacopœia proportions, though thus allowing for this half-ounce, are therefore still deficient about 1½ ounce, and the process might consequently be given:—Sulphuric acid, 7 fluid ounces; water, 78 fluid ounces and 6 drachms; mix.

The proportions here ordered to be taken, it has often struck us, are inconveniently large, and involve, with the directions given by the Pharmacopœia, unnecessary risks both in manipulation and calculation. Few dispensing chemists will make this quantity at a time, the majority probably being guided by the capacity of an ordinary (40 oz.) dispensing bottle. In these circumstances half the quantities are quite suitable; and much the safer plan, and one sufficiently correct, would be to take them in round numbers, thus:—Sulphuric acid, 3½ fluid ounces; water, 39½ ounces; mix. Still, as already stated, the flask is undoubtedly, under all circumstances, to be preferred, and where it is not convenient to have a multiplicity of utensils the 10,000-grain flask may be made available, instead of the pint ordered in the Pharmacopœia. For the 10,000-grain flask the proportion, by weight, of the respective acids would be:—Hydrochloric acid, 3,497 grains; nitric acid, 2,743 grains; and sulphuric acid, 1,543 grains. In these circumstances (as with the pint flask) the expansion resulting from the increase of temperature only requires to be allowed for, although it is of little moment, as even in the case of sulphuric acid it does not amount to more than 1 drachm, or 1 part in about 170.

Turning now to the diluted nitro-hydrochloric acid, it has frequently been pointed out that it will answer to the test neither of specific gravity nor of neutralising power. These might both be conveniently lowered, but, unfortunately, as ordered to be prepared it contains all the elements of uncertainty, and no standard will ever insure absolute uniformity. In directing the mixed acids to be set aside for 24 hours previous to adding the water, it is a question if there is not an unnecessary waste of chlorine gas from a too-lengthened contact of the concentrated acids. Twelve hours under ordinary circumstances seems sufficient to effect the necessary decomposition of the acids without unnecessary waste of gas, although doubtless much depends upon temperature, exposure, and other conditions which need not be enumerated. We have obtained much more uniform and satisfactory results by heating the concentrated acids, and thus producing speedy decomposition, than by any other method. For this purpose the strong acids are put into a large flask or other suitable vessel, and the heat is cautiously but quickly raised until effervescence takes place and the chlorine gas is copiously given off. The water is then added by degrees with brisk agitation, so as to absorb the free gas which has collected in the upper part of the flask. In this way, if the least care be taken but little chlorine need be driven off, as the heat, if quickly raised, does not to any extent affect the upper portion of the flask, while the concentrated acids are almost at once decomposed, and the whole process may be speedily concluded with but a minimum of the uncertainty characteristic of the official process.

One suggestion only need be thrown out regarding the

diluted phosphoric acid; namely, the recognition of a strong acid by the Pharmacopœia, from which the diluted acid might be prepared, as in the case of the other acids already referred to. The popularity of the different preparations into which phosphoric acid enters has already led to the introduction and general acceptance by chemists of a concentrated acid of specific gravity 1.75, and from this the diluted acid might most advantageously be prepared. The relation of this strong acid to the dilute acid of the Pharmacopœia may shortly be referred to, as it may be useful in some instances, and few of the text-books give any information on the subject.

Phosphoric acid of specific gravity 1.75, unlike the glacial phosphoric acid, is tribasic, and has as nearly as possible six times the saturating power of the official diluted acid. In diluting it to the requisite strength we may proceed by either of the plans considered in the other dilute acids, namely, by measuring the acid and adding the water, or by weighing the acid in the pint or 10,000-grain flask and filling up with water. By the former plan, 2 ounces by measure of the acid, and water to make one pint, will give a dilute acid a fraction over the Pharmacopœia in specific gravity and saturating power; by the latter plan, 1,470 grains by weight for the pint flask, or 1,680 grains for the 10,000, will give a dilute acid corresponding in every respect to the Pharmacopœial preparation. In adding the concentrated acid to the water the temperature is not raised to any extent, nor does contraction of bulk in the mixed liquids take place to any degree, so that both may be ignored in calculating results.

## FORMULÆ OF SECRET MEDICINES.

(Continued.)

*The Formulæ given below are translated (by special permission of the author) from a German collection compiled by Mr. Edward Hahn, Apotheker. The names following most of the Formulæ are those of the authorities quoted for the analysis. The weights are almost invariably given in metric denominations. A gramme is equivalent to 15½ grains. The prices quoted are the nearest English equivalents to the original retail price.*

**IDIATON** (Dr. Breslauer, Berlin).—For toothache. Turpentine oil, 1 part; clove oil and chloroform, of each, 2 parts; alcoholic ammonia, 4 parts. According to Hahn:—Colophony, 4 grammes; chloroform, 12 grammes; turpentine oil and alcoholic ammonia, of each, 8 grammes; mustard oil (essential), 1 drop. 4 grammes, 3s.

**"GENUINE JERUSALEM BALSAM, from Nazareth.** With a golden angel, near the image of a consumptive pilgrim, and in the background a mountain with a chapelle of the Holy Cross."—This is the label of a quadrangular flask holding 28 grammes of a tincture which contains aloes and benzoïn. It is the tincture which can be bought at a low price in every pharmacy under the name of compound tincture of benzoïn.

**JERUSALEMITANISCHER BALSAM** (Antonio, probably a maker of relics at Padua, though his address is nowhere indicated).—The balsam is much sought after in provincial districts in Austria. In a four-sided green flask of anetdyluvian appearance are found 23 grammes of a clear yellow fluid. This contains myrrh, saffron, aloes, turmeric, a fluid oil, ether, and diluted spirit. It is probably a mixture of aqua aromatica (Kinder, *i.e.*, children's balsam), Hoffmann's drops, and tinctures of myrrh and saffron. The following is an extract from the directions for use. "Firstly, it is good for men and women when they have pain in the belly or stomach to anoint the part with it, and to take 20 to 25 drops in wine or water. Secondly, it is valuable in time of plague, to take, morning and evening, 20 or 25 drops. Thirdly, it is good when one has lost his appetite; when it is taken it increases and maintains the desire for food. Fourthly, it heals all new and old wounds if you smear them with a feather dipped in it, or if several drops are let fall into it; wherever they may be, it heals them from the very bottom," &c.—Hager.



IMMANUEL'S PILLS are silver-coated 12-gramme pills, of aloes 3, gamboge 1, jalap 1.

INDIAN CIGARETTES consist of paper saturated with a tincture of cannabis indica, opium, and lobelia.

"INDISCHER PFLANZENSAFT—INDIAN PLANT JUICE—BALSAMUM ANTARTHRITICUM INDICUM.—For gout, muscular rheumatism, and similar diseases. The affected part is to be rubbed vigorously with the balsam two or three times daily. Each original bottle must bear our signature, and have our seal on the cork (Würt., Trading Company, Stuttgart)." This is the wording of the label of a small bottle containing 23 grammes of a slightly turbid, yellow, thick, oily fluid. Its taste, smell, behaviour with caustic, alkalies, and concentrated sulphuric acid, solubility in spirit, and other characters, show that it is an impure Indische Holzöl (the wood oil of the English; Gurjun, or Dhoonatil, of the Hindoos; Gurjunbalsam, of German druggists), which is used in Hindoostan, as turpentine is with us, for plasters and salves, and also instead of tar for varnishing. Holzöl has no special remedial power, and the reports of its effects are simply lies.\* 1s.—Hager.

INJECTION BROU.—For gonorrhœa. Water, 180 parts; zinc sulphate, 1 part; lead acetate, 2 parts; catechu tincture, 4 parts; tr. opii croc., 4 parts; unfiltered.

INJECTION BEI (i.e., FOR) GONORRHŒA (from the Medical and Polytechnic Institute of J. G. Druschke, Berlin).—Zinc oxide, .5 gramme; lead sulphate, 1 gramme; water, 150 grammes; tr. opii croc., 10 drops. 3s.—Schädler.

APOTHEKER KRAUSE'S—INJECTION No. 2.—For gonorrhœa (from the Medical and Polytechnic Institute of J. G. Druschke, Berlin).—Zinc oxide, .5 gramme; lead sulphate, 2 grammes; spring water, 50 grammes; tr. opii croc., 30 drops. 4s.—Schädler.

INJECTION REFRAÏCHISSANTE DE CHABLE.—A filtered solution of zinc sulphate, lead acetate, of each 1 part, with distilled water, 200 parts.

DR. RICHARD'S INJECTION.—Zinc sulphate, .25 gramme; distilled water, 240 grammes; tr. opii croc., .5 grammes. 2s. 6d.—Hager.

INJECTION SAMPSO CONTRE LES ÉCOULEMENTS.—For fluxes. A solution of 1 part lapis divinus in 150 to 200 water. —Rereil.

DR. VARDY'S INJECTION.—Zinc acetate, 1 gramme; vinegar of rue,† 30 grammes; gum arabic, 15 grammes;

spring water, 90 grammes; the whole coloured reddish. With it is sent a wooden pill-box containing 15 pills of soap and powdered marshmallow. 2s. 9d.—Schädler.

INJECTION VÉGÉTALE AU MATICO (Grimault & Co., Paris).—Copper acetate, .2 gramme, in 140 grammes distilled Matico water. 2s. 5d.—Hager.

DR. VESPER'S INJECTION (Harmuth, Berlin).—For syphilis and all discharges of the urethra. Lead acetate, 3 grammes; mucilage of gum senegal, 90 grammes; tincture opii, 2 grammes; water, 100 grammes. 9s.—Schädler.

VETTER'S INJECTION.—For gonorrhœa. A strong solution of opium and tincture of opium in water and mucilage, containing 2 per cent. of lead acetate.—Haff.

PROFESSOR DR. WAGNER'S EINSPRITZUNG—INJECTION.—Lead acetate, 1 part; zinc sulphate, 1 part; water, 180 parts. 5s.—F. Scriba.

INJECTION YOUNG.—Rosewater, 800 grammes; wine-vinegar, 200 grammes; lead acetate, 8 grammes.

INSTANTANEOUS INK EXTRACTORS (Perry & Co.).—These are pencils of cedar wood saturated with fused oxalic acid. The ink spots must be moistened and rubbed with the acid. Iron inks disappear. The reason the spots reappear after a time is that the ammonia of the air neutralises the oxalic acid.—Hager.

JOD-CIGARREN—IODINE CIGARS (J. D. Tormin, Stettin. His motto is, "Keine Schwindsucht mehr"—No more consumption!)—They contain no trace of iodine. 100 for 9s. to 12s.—Marquardt.

JODHALTIGER MILCHSYRUP—IODISED MILK SYRUP (Bouyer).—Cow's milk, 200 parts; raw sugar, 60 parts; mixed with a little sodium carbonate and one-sixth part of potassium iodide evaporated to 100 parts. 200 grammes, 2s. 6d.—Hager.

JODLITHIONWASSER—LITHIUM IODIDE WATER (Dr. Ewich).—Lithium chloride, .5 gramme; potassium iodide, 1 gramme; calcium chloride, .5 gramme; sodium carbonate, .75 gramme; water, 1,250 grammes; charged with carbonic acid.

IDO-BROMIDE-CALCIUM COMPOUND.—"A new alterative compound, by J. R. Black, M.D., New York, for cholera, contagious and cutaneous diseases, the itch, &c." It contains chlorides of calcium, aluminium, and magnesium, the chloride, bromide, iodide, sulphate, phosphate, and silicate of sodium, nitrate of potassium, &c.—Goddfrey.

JODPASTA—IODINE PASTE (Paris).—For destroying the nerves of the teeth. A mixture of arsenious acid, 1 part; morphia hydrochlorate, 3 parts; made into a paste with glycerine, and coloured with Berlin blue.\* 1 gramme, 4s. 6d.—Leimbach.

IRISWASSER—RAINBOW-WATER (S. Mode, Berlin).—For beautifying the skin. Spring water in which a little common salt and oils of lavender and citron have been dissolved, and holding flowers of sulphur in suspension. 250 grammes, 3s.—Wittstein.

JUGENDSPIEGEL—MIRROR OF YOUTH.—"Reliable Counsel and Certain Help for the Weak and Impotent, by B. Bernhardt, Berlin." A brochure in twelves, which recommends, in eight chapters, the author's unfailing cure. Two half-litre flasks of honey, diluted with water, and generally fermenting vigorously. 60s.—Schädler.

\* There has been a good deal of correspondence on this matter in the *Pharmaceutische Zeitung* during the past year. The balsam has been advertised in Germany by the firm of Eluain & Co., as if it were recommended and supported by a Dr. Hölder, of Stuttgart. Dr. Hölder, however, has indignantly denied that he is responsible for the statements made, or that they have been published with his authority. His only connection with the article consisted in an investigation of its medicinal properties, undertaken some years ago at the instigation of Director Huber. Eluain, finding that the short notice of these experiments would be useful, has published the doctor's name with the balsam, without his knowledge or consent. Eluain & Co. have obtained from Dr. B. Hirsch a certificate or statement dated September 28, 1878, to the following effect:—"A large soldered case of the drug, weighing several hundred pounds, was opened in Dr. Hirsch's presence; a sample was taken and examined, to determine whether it was, as asserted, identical with Gurjun balsam. The preliminary examination showed that there was hardly a trace of resemblance between the two articles; the balsamum antarthriticum was found to contain more than 8 per cent. of its weight of a solid fatty acid, with resin and water in addition, and a small proportion of a fluid acid, viz., valerianic acid; on the other hand, no evidence could be obtained of the presence of a volatile oil, or of free or combined glycerine. Gehe's *Commercial Report* for September, 1878, states that this balsam seems to be nothing but Gurjun balsam, although it is sold at ten times its price.—ED. C. & D.

† German Rautenssigg, acetum rutæ, or, more properly, acetum rutaceum, in the Ph. Edin. 1744, was ordered to be made by digesting rue 1 lb. in vinegar 1 gallon. The preparation is not in the present German Pharmacopœia. In the Greek Pharmacopœia, 1868, it is called Oxus peganion, from peganon, the Greek name for the plant, and is made by digesting for three days 1 part of rue (dried) with 6 parts of vinegar and 1 part of spirit, then strain and filter. Hooper says it was formerly called Rutaceum, but this is probably an error for acetum rutaceum. "It stands recommended as an anti-pestilential, but is little regarded in the present practice, and not often kept in the shops."—*The New Dispensatory*, London, 1753.—ED. C. & D.

\* The form for "Arsenical Paste for Dentists" given in Squire's "Companion," ed. 8, p. 5, is as follows:—Arsenious acid, 2 parts; morphia sulphate, 1 part; creasote to make a stiff paste. The use of arsenic for this purpose was first proposed about A.D. 1838 by Dr. John R. Spooner, of Montreal. Dr. Flagg, sen., of Philadelphia, first combined creasote with it. It is used solely to devitalise the pulp of decayed and tender teeth. A minute portion is worked up in a plodget of cotton wool, and placed neatly over the pulp. It is then accurately and carefully covered with a larger mass of wool saturated with an alcoholic solution of sandarac or some other waterproof resin.

## AN EXPERIMENT IN OPIUM-SMOKING.

N. VON MIKLUCHO MACLAY.\*

**D**URING my stay in Hong Kong I tested, on myself, the effects of opium, and the results, at my desire, were observed by a competent person.

The experiment was made at the Chinese Club, where every convenience for smoking opium is to be found. Dr. Clouth, of Hong Kong, was kind enough to take the necessary observations, and his notes are recorded below. These may be summarised as follows:—Herr Maclay was in normal health, and had fasted 18 hours before commencing the experiment. He had never smoked tobacco. Twenty-seven pipes, equivalent to 107 grains of the opium used by the Chinese, were smoked in two and three-quarter hours, at tolerably regular intervals. The third removed the feeling of hunger caused by his long fast, and his pulse rose from 72 to 80. The fourth and fifth caused slight heaviness and desire for sleep, but there was no hesitation in giving correct answers, though he could not guide himself about the room. After the seventh pipe the pulse fell to 70. The 12th pipe was followed by singing in the ears, and after the 13th he laughed heartily, though without any cause that he can remember. Questions asked at this time were answered only after a pause, and not always correctly. He had for some time ceased to be conscious of his actions. After the 25th pipe, questions asked in a loud tone were not answered. After the last pipe had been smoked he remarked, "I do not hear well." Forty minutes later there was a slight return of consciousness, and he said, "I am quite bewildered. May I smoke some more? Is the man with the pipe gone already?" Fifteen minutes later (4.55 P.M.) he was able to go home, and then retired to bed. He woke the next morning at 3 A.M. and made a hearty meal, after his fast of 33 hours. During the next day he felt as if he had bees in a great hollow in his head, as well as a slight headache.

The organs of locomotion were first affected, next came sight and hearing, but Herr Maclay is very positive that there were no dreams, hallucinations, or visions of any sort whatever.

## SIMPLE TREATMENT OF RECENT WOUNDS.

**A** CHEMIST'S shop is so frequently made the refuge in cases of street accidents that it is well for all to be acquainted with the simple rules which should be followed in such cases. Nearly always it is some wound, and often there is very troublesome bleeding, which complicates matters and causes much anxiety, which need not arise if there is a firm grasp of those means which nature has provided to arrest serious losses of blood. Here, as elsewhere, it is ignorance which causes alarm.

The first thing to be done is to stop any bleeding which may be going on, and to fully understand the rationale of the means used it will be necessary to say a few words as to the different forms of hemorrhage and how they may be recognised. There are three forms dependent on the vessels wounded, and each having its own peculiarities, which result from the conditions of the circulation in each; they are:—  
1. Arterial—from wounding one of the arteries or vessels which carry blood from the heart to the different tissues.  
2. Venous—from veins or vessels returning blood from the tissues to the heart.  
3. Capillary—from microscopical vessels which intervene between arteries and veins, and in which those changes take place between the blood and tissues on which the life and well-being of the latter depend.

Those capillaries are very small vessels indeed, and in them the circulation is very slow, and from their small size the friction is so great as to offer very serious obstruction to the flow of the blood, so much so that after passing through them the velocity of the current of blood is very much diminished, and what was before a jerking flow now becomes a continuous one. It is in these small vessels that the blood

becomes changed from its bright red colour to a dark purple tinge.

It will be seen that in the two first varieties the blood flows in opposite directions—in the arteries, from the heart towards the extremities; in the veins, from the extremities towards the heart—so an artery being cut across bleeds from its proximal portion, or that nearest the heart, whereas in a vein it is the distal, or portion most removed from the central organ. In the case of arteries which have no valves, and the blocking of which would mean death to the part supplied, constant intercommunication is kept up between the larger vessels by means of smaller ones; and this method of preventing serious results to the dependent part is denominated anastomosis. Thus a vessel being blocked by a clot becomes impervious to the passage of the blood, but this fluid finds its way into the still pervious part beyond by means of the anastomotic vessels. There will, therefore, be no difficulty in recognising that the distal part of an artery may bleed almost as freely as the proximal, if its anastomoses be free; so that it is absolutely necessary to secure both ends of the vessel, even although at the time the distal portion may not bleed, yet in a few hours, when the collateral circulation has become developed (*i.e.*, the anastomotic vessels having become dilated by reason of the blood forced into them, owing to blocking of the main channel), there will almost certainly be some hæmorrhage, which will necessitate a re-opening of the wound, and a search for the part of the vessel previously unsecured. Arterial bleeding is recognised by the blood escaping in jets—there is a continuous flow, but at regular intervals there is a distinct increase in rapidity and force of ejection. This is due to the impulse of the heart, which, sending into vessels already full, but elastic, a fresh supply with great force, causes a rapid distending wave to pass through the whole system of arteries; the blood not only appears to be pumped out, but escapes with much force, and is often carried to some distance. The blood will be of a bright scarlet tint.

Venous bleeding will be distinguished by the dark colour of the blood (dark blue or purplish), by the fact that it wells up freely from the wound without any trace of jerking, but in a steady continuous stream. The veins are provided with valves, in order to prevent any reflux of blood. They are merely semi-lunar folds of the lining membrane of the vessels, and during the flow of blood towards the heart they remain closely applied to the inner wall, as their free edges are directed towards the heart, but when any cause interferes with the onward flow, such as pressure, the fluid attempting to flow back at once floats the valves out into the centre of the vessel, until they meet and prevent any regurgitation; the vein, if superficial, is seen to be made up of a series of swellings, bounded by nodes, these latter marking the position of the valves. Owing to this arrangement the proximal end of a vein cannot bleed unless the valves are incompetent.

Capillary hæmorrhage, with which is included that from very small arteries and veins, depends for its colour on the amount of change which has taken place between the blood and tissue, sometimes resembling arterial, sometimes venous, but its peculiar feature is that it is a general oozing from the whole of the wound, like fluid from a wet sponge. This is the very easiest form to arrest, for simple exposure to the air or free application of cold water, or pressure, will readily and completely stop all further flow. In such a case it is best, however, to wipe away any clots with a piece of dry lint, and dry the sides of the wound in the same way, and immediately to bring the sides together, and then with a pad of dry lint and bandage to keep up pretty firm pressure.

When the blood is of dark colour and freely welling up, a vein has been injured; and here again its arrest is not attended with much difficulty. The same plan may be adopted as for the capillary form, but if the vessel is large, place an extra pad on the distal side of the wound.

It is the arterial form which is so serious, and which, if the vessel is at all large, will necessitate surgical interference, for if the vessel be not ligatured or submitted to torsion, there is always a danger of secondary hæmorrhage from slipping of pad or the clot being forced out of the vessel before those changes which seal up the wound have had time to take place. Pressure, however, will always temporarily arrest the most furious bleeding, and should be made by pressure with the finger in the wound over the place

\* Translated from the "Naturkundig Tijdschrift van Nederlandsch-Indië," Zevende serie; Deel v, p. 243.



where the blood is seen to issue, placing in the wound some lint, fitting tightly above this a firmer and larger pad, and then with plaister or bandage making it secure; or a stone in a pocket-handkerchief may be placed between the wound and the heart, and tightly twisted, the stone being placed over the main vessel, which can be felt beating by the finger.

The following rules for arresting bleeding may be usefully borne in mind:—

I. It is most important to remember that bleeding, however severe, may always be arrested temporarily until skilled assistance can be obtained.

II. In slight forms apply cold, make pressure by means of finger or pads of lint, or pieces of linen.

III. If it be a limb always raise it above the body, so as to lessen the flow of blood by opposing the force of gravity against it.

IV. Apply a tight band between the wound and heart, and if you can discover the pulsation of the main vessel, place a thick pad over it under the band: thus the chief supply will be at once cut off.

V. If you can distinctly see one point from whence the blood seems to flow, at once place the finger over it.

VI. Place the patient in the recumbent position, with the head low, as this will be the safest position should fainting take place.

VII. Never on any account cover up the wound with cloths put on lightly, on the principle that what is not seen cannot be occurring, for the result will be disastrous, as in the case of a fine, strong young fellow of 18, who whilst handling a gun managed to discharge it with the result of blowing away part of his arm, and laying open its main blood-vessel. The arm was wrapped in sheets, and when, after a ride of some 18 miles, he was admitted into hospital, he only just lived long enough to be taken inside, having quietly bled to death. Had a band been firmly placed above the wound, or had this been fitted with a pad, and this kept securely in place by a tightly-compressing bandage, the poor young fellow would have been saved.

Having succeeded in arresting the bleeding, the next point is most carefully to cleanse the wound from any foreign body, such as hair, dust, or even clots of blood, as any of these will prevent immediate union. This should be done by means of a dry piece of lint, the application of water being most carefully avoided, as it is apt to produce an unhealthy state of the tissues, and to the formation of matter. Scalp wounds will always do well if simply cleansed, the hair around cut short, quite close to the scalp, the edges brought together, and a firm pad of dry lint held in place for 12 or 24 hours by means of a tightly-fitting bandage, which after the lapse of that time may be removed; such pieces of pad as are not adherent may be cut away, and the remainder left to drop off of its own accord, unless much pain be complained of, or there is a soaking through of offensive pus; in such a case at once remove all outward applications, so as to allow a free escape of matter. It is also a very good plan to soak the part of the pad in contact with the wound with the compound tincture of benzoin, which acts as an antiseptic, helps to keep the edges of the wound in apposition, and forms a uniform covering to exclude the air. The styptic colloid is very useful in wounds of the face, where sutures have to be put in, as if well painted over it forms an impermeable coating, and does away with the necessity of using any dressing, so that sutures may be removed without taking off coverings which have become adherent, and in doing so disturb the wound. The ordinary emplastrum plumbi, although so commonly used for wounds, is about the worst possible application, for it invariably prevents immediate healing by giving rise to suppuration.

The secret of successfully treating wounds depends, as described by Mr. Gamgee in a recent clinical lecture, on "accurate co-aptation, dry and infrequent dressing, uniform gentle pressure, and absolute rest," statements fully and abundantly corroborated in our own experience.

It may be well to explain in conclusion the meaning of the terms union by first and second intention. Wounds that heal by the "first intention" do so by the throwing out of lymph, which holds the surfaces together and ultimately becomes organised and transformed into ordinary connective tissue. There may, however, be a growing together of

two opposed surfaces in a clean-cut wound, without any lymph being exuded, and this is termed "direct union," but is rather rare. Healing by "second intention" is where lymph being thrown out, the inflammatory process continues, and pus is formed, the sides of the wound become separated, and after a time granulations spring up, and gradually coalescing close the cavity. A bad state of health, any foreign body left in the wound, any impurity in the dressings, and diachylon plaister will prevent union by first intention, and thus lead to the loss of much time, and run the risk of leaving a larger and more marked scar. M.R.C.S.

## THE ACTION OF REMEDIES ON THE LIVER.

DR. WILLIAM RUTHERFORD, of the University of Edinburgh, assisted by M. Vignal and Dr. William J. Dodds, has for some time past been examining by scientific methods the effects produced on the liver and the biliary secretion of the dog by a long series of drugs. The investigation has been assisted by a grant from the British Medical Association, and a lengthy and interesting report has been published in recent numbers of the *British Medical Journal*. The following short account is founded on the summary of results published in No. 945. The authors state carefully that "all the conclusions are based on experiments performed on the dog, and have no reference to any observations made on the human subject." But in the few cases in which the results thus obtained have been relied on in suggesting experiments on men, the results seem to be trustworthy, and much light is thrown on the comparative action of remedies. It is impossible to avoid much disagreeable repetition in reports of this kind, but attempts have been made by classification to reduce this as much as possible.

Calomel stimulates the intestinal glands, but not the liver. Mercuric chloride is a powerful hepatic stimulant, and has only a feeble action on the intestinal secretion. When administered together the liver and intestinal glands are both excited.

Castor oil does not stimulate the liver, and croton oil does so but slightly. Both excite the intestinal glands.

Jalap is a powerful hepatic and intestinal stimulant, scammony very feebly excites the liver, gamboge stimulates the intestinal glands only.

Colocynthis and ipecacuanha both largely increase the secretion of bile. Ipecacuanha slightly augments the secretion of intestinal mucus, while colocynthis powerfully excites the intestinal glands.

Taraxacum and senna are both feeble hepatic stimulants. Rhubarb increases the secretion of bile—certainly, though not largely; aloes is a powerful stimulant of the liver.

Podophyllin is "a very powerful stimulant of the liver," the bile secreted under its action retaining its normal percentage of solids. If the dose be too large, the secretion of bile is not increased. It is also a powerful intestinal irritant. Euonymin, sanguinarin, and iridin are all powerful hepatic stimulants, and they also increase the intestinal secretion, but not so violently as podophyllin. Leptandrin, baptisin, phytolaccin, hydrastin, and juglandin have similar but milder effects. Menispermis slightly stimulates the intestinal glands, but not the liver.

Magnesium sulphate and manganese sulphate\* stimulate the intestines, but not the liver; sodium sulphate has a considerable effect on the liver, and a lesser one on the intestinal glands; potassium sulphate is a hepatic and intestinal stimulant of considerable power, though its effect on the liver is uncertain, owing probably to its sparing solubility.

\* This result is singularly discordant with the observations of Dr. R. H. Gooden, which attracted considerable attention in the medical journals of the past year. For more than 35 years he had employed it with great success in cases of liver disease, especially those coming from the tropics. He was led to use it by a note in Pereira's "Materia Medica," then first published, to the effect that the stomach and intestines of rabbits killed by poisonous doses of the salt were found to be filled with pure bile. Dr. Gooden says, "from 10 grains to a scruple will produce large bilious evacuations," and "it produces no more irritation to the intestinal or anal glands than is caused by a flow of bile."—Ed. C. & D.



Sodium phosphate is a powerful hepatic and moderately powerful intestinal stimulant; ammonium phosphate is a moderately powerful stimulant of the liver, but does not excite the intestinal glands; Rochelle salt is a feeble hepatic, but a powerful intestinal stimulant.

Dilute nitro-hydrochloric acid is a hepatic stimulant of considerable power; sodium chloride is a feeble stimulant of the liver; ammonium chloride excites the intestinal glands, but not the liver. Potassium iodide has no notable effect on the biliary secretion.

Calabar bean, in moderate doses, stimulates the liver; atropine-sulphate antagonises its effect, but when given alone does not actually affect the secretion of bile. Morphia does not appreciably affect the hepatic secretion, and does not interfere with the stimulation produced by such a substance as sodium salicylate. Hyoscyamus resembles morphia in these respects. Pure diluted alcohol does not affect the biliary secretion, and jaborandi is a very feeble hepatic stimulant.

Lead acetate, in large doses, diminishes the secretion of bile, probably by direct action on the liver. Tannic acid does not affect the biliary secretion.

#### AMENDMENT OF THE SALE OF FOOD AND DRUGS ACT.

A DEPUTATION from the Chemists and Druggists' Trade Association waited on George Anderson, Esq., M.P., P. A. Taylor, Esq., M.P., and John Whitwell, Esq., M.P., at the House of Commons, on February 20, 1879, at 4 p.m.

Mr. Haydon (the Secretary of the Association) having introduced the deputation, said that as a Bill was before the legislature for the purpose of amending the Sale of Food and Drugs Act, 1875, the Association he represented had deemed it advisable to appoint a deputation to wait upon those members of the House of Commons who had charge of that Bill, with a view to suggest certain other amendments in the Act, which he trusted would meet with their approval and be embodied in the Bill. He would more particularly direct their attention to clauses 14, 15, and 21. By the 14th clause it was enacted that a purchase having been made of any article, within the meaning of the Act, for the purpose of analysis, the purchaser shall "forthwith notify the seller or his agent selling the article his intention to have the same analysed by the public analyst, and shall offer to leave a portion with the seller or his agent." It happened that in the majority of cases in which they had been called upon to defend their members in the Law Courts in prosecutions under the Act, the vendors refused the duly sealed official sample when offered by the purchaser, and consequently it was only after the Association had been put to considerable expense, and by the courtesy of the various Town Clerks residing in boroughs where the prosecutions had occurred, that sealed samples were obtained from the authorities by the Association for the purpose of independent analysis; those samples, when so obtained, had previously been in the hands of the analysts, who in many cases suggested the prosecution. For the better protection of vendors, he would suggest that clauses 14 and 15 of the Act should be repealed, and that clause 14 should be re-enacted with the omission of the words "offer to," in the fifth line, and "and shall, if required to do so, proceed accordingly," in the eighth line. This would make it compulsory on the purchaser to leave a sealed sample with the vendor at the time of purchase.

Mr. Anderson: What difference does it make if the vendor does not want a sample left with him?

Mr. Glaisyer (the Solicitor of the Association): In the carrying out of this Act we find, in nine cases out of ten, the vendor says, "I don't want the sample, because I have plenty in bulk," and we think that when a purchase is made for the purpose of analysis a portion of the article bought should be left with the vendor.

Mr. Anderson: The purchaser is bound to do that.

Mr. Glaisyer: No. He is bound to offer it.

Mr. Anderson: But if the seller does not want it what good would result from leaving it on his counter?

Mr. Glaisyer: You then supply him with a means of defence.

Mr. Haydon: It also prevents the whole of the sample purchased being placed in the analyst's hands.

Mr. Anderson: The vendor might throw it away. If he does not want to take it when it is offered how can you force it upon him?

Mr. Hampson: If a sealed sample is left with the seller he would look upon it as distinct from his ordinary stock, and would be disposed to take care of it. Under any circumstances, he thought the whole of the article purchased should not be forwarded to the analyst.

Mr. Whitwell: The way to obviate that is to enact that, in case a sample is refused by the vendor, the purchaser shall be bound to retain some portion of the article purchased in his own possession for a certain length of time, to be surrendered to the vendor on application being made, and on payment of any costs that may have been incurred.

Mr. Anderson: I ought to state that the Bill is to a certain extent out of my hands; it is referred to a Select Committee, and I am anxious to obtain your ideas in order to bring them before that Committee when it sits.

Mr. Taylor: The absolute division of the article purchased into three parts would be of public advantage, because all parties would then have a sufficient means of ascertaining the facts of the case.

Mr. Haydon: If the words I have previously referred to, in the 5th and 8th lines of the 14th section of the Act, were erased, the whole of clause 15 becomes inoperative, and may be repealed.

Mr. Taylor: I think the Bill would be better in that form.

Mr. Whitwell: I also think it would.

Mr. Anderson: I see no objection to it.

Mr. Glaisyer then referred to the 21st section of the Act, which provides that the certificate of the analyst should be sufficient evidence, unless the defendant demand the attendance of the analyst himself. He would like this clause made more definite, so as to make it clear that when the defendant made such a demand, the case for the prosecution should not be complete until the analyst had been put in the witness-box. Mr. Glaisyer had no doubt at all as to what construction the superior courts would place on the section; but in one case which he had defended a bench of magistrates took the view that it was necessary the analyst should be in attendance, but not necessary for the prosecution to call him.

Mr. Whitwell: *Prima facie* the certificate of the analyst is proof. I have been present when two or three cases have been decided in that form.

Mr. Glaisyer: My suggestion is, that if the defendant, under the machinery supplied by the 21st section, wishes the attendance of an analyst, he shall be put in the box to prove his certificate.

Mr. Hampson: It would not be required in every case, but only in contested cases.

Mr. Whitwell: If the person supposed to be offending summons the analyst to appear, he can cross-question him on his certificate.

Mr. Glaisyer: By a rule of law, if I call a witness I am not at liberty to cross-question him; I must examine him as if he were my witness, and that places me at a disadvantage, as in many cases the prosecution is recommended by the analyst.

Mr. Whitwell: Then you have to bring counter evidence. I think the defendant is always placed in a better position if he has a substantial analyst, and if that analyst is able to say he has carefully investigated the question. If a man of authority were to say the certificate is not correct, I think that magistrates would be much more prone to rely on him.

Mr. Hampson: In one case, where the analyst appeared in the box, we had to pay the expenses, although the case was decided in our favour through his own evidence.

Mr. Haydon: We have never yet obtained costs under the Act.

Mr. Anderson: Have you tried to get them?

Mr. Glaisyer: I have invariably applied for costs, but I have been told—"We think the police did right: although they failed in proving the case, yet there was a sufficient question for them to bring forward." We failed to obtain costs when a case broke down on the evidence of the analyst himself.



Mr. Whitwell: Have you had many cases to defend?

Mr. Glaisyer: I think about 10 or 12 chemists' cases.

Mr. Whitwell: We all agree that it is undesirable that adulterated articles should be sold. I think the Act is in favour of all honest men.

Mr. Glaisyer: Undoubtedly; and I may say we have not lost a case yet, for although we have been unsuccessful before the magistrates, the decision has been reversed on appeal.

Mr. Haydon: In one case we spent upwards of 200*l.* in defending a most frivolous prosecution.

Mr. Whitwell: Do you represent the whole of the chemists and druggists in the country?

Mr. Haydon: We represent between 4,000 and 5,000 chemists residing in Great Britain.

Mr. Whitwell: You have a record of all cases?

Mr. Haydon: We have.

Mr. Whitwell: Where is your centre?

Mr. Haydon: Birmingham.

Mr. Whitwell: Have you large subscribers?

Mr. Haydon: The subscription is 5*s.* per annum from each chemist and druggist.

Mr. Whitwell: Does your Association deal with other questions?

Mr. Haydon: With every question affecting the trade of a chemist and druggist.

Mr. Whitwell: I remember some cases in which I think you have done good work. In that case, which you say cost the Association 200*l.*, on what grounds were the costs refused?

Mr. Taylor: That no provision was made for them.

Mr. Glaisyer: No provision was made for them except on appeal, and then they are left in the discretion of the Court.

Mr. Whitwell: Then magistrates have power to grant them.

Mr. Glaisyer: They say there is a special provision in the Act for the payment of costs on appeal, but no provision made for payment of costs on the hearing in the first instance, and therefore they do not allow them. I may mention that the county magistrates have to administer the funds out of which the costs would be granted, whereas in boroughs the Town Council have to pay if the magistrates allow costs; so that in the cases of boroughs costs are seldom allowed, and in the counties they are invariably refused.

Mr. Anderson: I should think that was a hardship, not allowing costs in the case of a failure.

Mr. Taylor: Are those the only points?

Mr. Glaisyer: Yes; I have put the suggested alterations down on paper, and will hand them to you if you think they will be of service.

Mr. Anderson: We will bring these suggestions before the Committee when it sits, and take them into consideration.

Mr. Whitwell: You do not ask for an alteration in the Bill itself.

Mr. Glaisyer: No, sir; we feel very glad that you have brought it in.

Mr. Hampson: On behalf of the deputation I beg to thank you for your attention and courtesy.

The deputation then withdrew.

#### IRIDIN AND EUONYMIN.\*

THE *Iris versicolor*, W., is the only species of iris of medicinal importance at the present time. Its properties are not very different from those of the European species, but the accident of its being a native of the United States, in which the Eclectic school of medicine took its rise, has led to its prominence at the present time. It is included in the secondary list of the United States Pharmacopœia,

\* Dr. Rutherford's report on "Cholagogues," an abstract of which is printed on another page, has already caused a large increase in the demand for these substances, and they are likely to become fashionable drugs. In the following brief compilation Wood and Bache's American Dispensatory has been laid under contribution, with other works.

and in the homœopathic Pharmacopœia. The root is largely sold by the "Shakers," and is greatly esteemed by the "Eclectics" and herbalists of North America. Among other popular names it bears the following:—Blue-, poison-, or water-flag, fleur-de-lis, flag-lily, snake-lily,\* and liver-lily. The latter name indicates the popular appreciation of its properties.

Nothing definite is known of the chemical constituents of the root, though it has been made the subject of an inaugural dissertation by Carl H. Marquardt (*Am. Jour. Pharm.*, September, 1876). Iridin, or irisin, is a substance of thoroughly indefinite composition. Nothing is known of the method of its preparation, though the American Dispensatory ascribes to it the general process for the manufacture of "Eclectic remedies." A tincture of the root is precipitated with water, and the precipitate mixed with an equal weight of an inert powder. The results will vary with the details of the process followed. The precipitate obtained by adding a weak tincture to a large quantity of water will certainly differ from that produced by mixing an alcoholic fluid extract with an equal bulk of water. It will also vary according to the stage of growth which the plant had reached when the roots were gathered. Some preparations in the market contain half their weight of milk-sugar, so that if 4 grains of iridin are ordered 8 grains of the powder must be used. The labels on the preparation of at least one firm state that it is a mixture of iridin and irisin, a distinction which, we believe, has no logical existence. Iridin was probably selected for experiment by Dr. Rutherford on account of a statement made in the *Lancet* of 1862, to the effect that it had been found to produce effects similar to those of a mixture of blue pill, rhubarb, and aloes. Dr. Rutherford says: "As yet we have found 4 grains of iridin a certain remedy for biliousness. It may be made into a pill with confection of roses, and taken at bedtime. It produces no disagreeable sensations, and on awaking in the morning the yellow tongue is clean, and the headache and *malaise* are gone. As iridin, though a powerful hepatic, is not a powerful intestinal stimulant, it is well to give in the morning an ordinary mild saline aperient, such as Pülina water. Iridin, though an agreeable remedy at the time, has a somewhat depressing effect, and it probably should not be taken much oftener than once a week."

The name Euonymin has been applied to two very different substances. W. T. Wenzell designates by it an uncrystallisable, intensely bitter, neutral principle, obtained from the bark of *Euonymus atropurpureus*. According to W. P. Clothier the Eclectics call by this name the complex precipitate obtained by pouring into water a concentrated tincture of the same bark. It is a dark yellow, very bitter substance, containing some resin and oil. *Euonymite* is the name given by Kubel to a saccharine crystallisable substance resembling mannite, and obtained from the inner bark of *Euonymus Europæus*, the common English *spindle tree*.

The *Euonymus atropurpureus* is a shrub tolerably common in the United States, and a favourite in gardens, on account of the splendid rich-red fruit, which is produced in such abundance that it has earned for the plant the name of "burning bush."† Other popular names for the plant in America are:—Indian arrow-wood, spindle tree, and "Wahoo."‡ Preparations of the bark have been used with success by various American doctors in a variety of cases, but nothing very definite has been known previously. The euonymin at present in the market is as indefinite as iridin, and similar remarks may be made upon it.

\* In the Isle of Wight *Iris fetidissima* is called *Snake's fiddles*.

† This plant is frequently mentioned in American works of fiction. Tennyson refers to the European species in "A Dedication," in the following words:—

" . . . . . like the fruit  
Which in our winter woodland looks a flower."

‡ Wahoo, pronounced "wawhoo," is also applied to the *Ulmus alata* of the Southern States. It is the name under which the remedy was first introduced to the profession by Mr. G. W. Carpenter, about 60 years ago. Spindle tree is the commonest English name of the *Euonymus Europæus*, and is given to the shrub from the use of its wood in making spindles. The hardness of its wood renders it specially suitable for this purpose, as well as for making arrows, a use indicated in the name "Indian arrow-wood."

Dr. Rutherford states that "Euonymin is a hepatic stimulant in man as it is in the dog. Two grains of it made into a pill, with confection of roses, and taken at night, seem to be as efficient a remedy for biliousness as iridin. If the dose be not too great it leaves no depression. A dose of a saline aperient should be taken in the morning. I have been much struck with the success of euonymin in functional hepatic derangement in several persons who had tried nearly all the commonly-used eholagogues with varying and often limited success. I have no doubt that in consequence of our experiments euonymin will come to be a universally-employed hepatic stimulant."\*

## NAMES OF BRITISH MEDICINAL PLANTS.

By W. G. PIPER, F.L.S.

### The Elder.

ACTE, the oldest name, first applied to *Sambucus ebulus* and *S. nigra*, then specifically to *S. nigra*, and with qualification to *S. ebulus* by the Greeks and Arabians; mentioned by the Latins as a synonym, and then corrupted; still the official name of the plant in Greece, and the official name of the berries elsewhere; occurring in German, Dutch, Danish, and Swedish, applied *solely* to *S. ebulus*; included in English vocabularies; of very doubtful origin.

HIPPOCRATES (B.C. 460-377?) is the first who mentions the elder. He gives no description of the plant he calls *aktē*, but he states that it is more active as a purge than as a diuretic, and recommends decoctions of the leaves or fruit in wine and water as fomentations or lotions in the diseases of women. Theophrastus (B.C. 372-286), in his works on plants, describes the *aktē* as a tree or shrub with a trunk without knots, and equal in thickness to a helmet, and with shoots at most 6 cubits long. The bark is light, thin, and dry; the wood is spongy and light; the branches are full of a soft pith, which can be removed. Some make light walking-sticks of it. In damp and shady places and near waters it is a shrub, and in dry localities it is a tree. This character proves that he confounds the elder and the dwarf elder, *Sambucus nigra* and *S. ebulus*. The former is the well-known shrub or tree growing in dry places. The branches of its cyme of flowers are five in number. The dwarf elder grows in damper localities; its stalks are herbaceous, dying down every year, and the character which most distinguishes it from the common elder is the triple branching of the cyme. *S. ebulus* is neither so common nor so generally known in England as the common elder, and it so closely resembles that plant in everything but size that it is probably often mistaken for it.

Dioscorides (A.D. 77) tells us that the elder—the *Aktē*—is of two kinds. One is arborescent, with long, reedy, round, partly hollow, whitish branches. Four or five leaves (*i.e.*, leaflets) sprout at intervals from each stalk: they are like walnut leaves, but are longer, and have a heavy smell. On the tops of the stems or branches grow rounded umbels of white flowers; the fruit is like that of the terebinth—blackish-purple, juicy, and vinous. Some call it *dendron arktou*, or *arbor ursi*; others *arbor domestica*; the Gauls, *scobies*; the Dacians, *seba*; the Romans, *sambucus*. *Chamaiaaktē* (*i.e.*, dwarf *aktē*), otherwise called *cleius aktē* or *agria aktē*, *cubica*, by the Romans *ebulus*, by the Gauls *doukonē*, by the Dacians *olma*—is the name of the second kind, differing from the first chiefly in its smaller size and herbaceous geniculate (?) four-angled stems. The properties of the two are treated together. The leaves, boiled and eaten as pot-herbs, purge bile and phlegm. The root, boiled in wine and taken with the food, helps dropsy; the same drink is taken for the bites of vipers. Boiled in water the root softens and opens the matrix and cures its affections. The fruit, boiled in wine, has the same effects, but it also blackens the hair if used as a wash. The fresh young leaves, boiled with meal, relieve inflammations, and are used in burns and the

bites of dogs. Mixed with the suet of bulls or goats, it cures ulcers and helps the gout.

Some of the Arabic names of this plant still recall the conquest of the world by the Saracens. In the "ULFAZ UDWIYEH, or the Materia Medica in the Arabic, Persian, and Hindavy languages, compiled by Noureddeen Mohammed Abdullah Shirazy, Physician to the emperor Shahjehan," translated in 1793 by Francis Gladwin, we find *uk-tee* mentioned at No. 240, *khā-mā-āktee* at No. 829, and *khama-uktee* at No. 1436. These names are evidently copied from the Greek. Ainslie, in his *Materia Indica*, gives *uktee* as one of the Arabic names of the common elder. The tree, he says, is little known in India, but the Arabians and Syrians seem well acquainted with it, and consider the inner green bark of the stem an aperient and deobstruent. John Martin Honigberger, physician to the court of Lahore for 35 years, gives *uktee* as one of the Arabic titles of *Sambucus nigra*. This species is unknown to the Lahore hakeems, but *S. adnata* and *S. ebulus* grow in Cashmere and the Himalayas. The roots and berries of the latter are used in dropsies. Tabernæmontanus gives *Kameactis* as the Arabic name of *Sambucus ebulus*.

Pliny (A.D. 78) and Apuleius Platonius just mention this title. The Greek writers of the third to the thirteenth centuries record the name *aktē*, but variants or corruptions have appeared, and the forms *aktaia*, *aktis*, and *aktra* are registered as names of the elder. Chamaiaakte is still the title of *Sambucus ebulus*, but *aktē* is sometimes applied to this plant as well as to *S. nigra*. In both senses the writers of lexicons and glossaries deem it necessary to explain it by other names, which are presumably more familiar (*Langkavel Botanik der Spacteren Griech.* p. 44; *Dufresne Gloss. Græc. Barb.* index plantarum).

In the Hellenikē Pharmakopoiā of 1868 *aktē* is retained as the popular Greek name of the plant, and *aktes anthē kai sphairia*, elder flowers and berries, are included in the list of *Materia Medica*. The *Romaic Dictionary* of Kontopoulos (a less trustworthy authority) does not give this name for the elder tree. *Grana actes* is still the name by which elder-berries are known to pharmacists in countries where they are official.

In German the dwarf elder is now commonly named *der attich*; in Dutch its less familiar name is *haddig*; and in Danish and Swedish, *attik*. The elder, *S. nigra*, is *never* called by these titles. *Attich* and its cognates cannot by any law of language come directly from the Greek. An intermediate form is required in which the guttural is transferred to the end of the word. Diefenbach (*Origines Europeæ*, p. 324) points out that the *actis* recorded in his Glossary forms one link of the chain, but he fails to supply the others. *Chamaeactis* became in the Middle Ages *Cameactis* (Sumerlaten) and *Cameatus* (Brunschwygk Buch der Distill.). The latter form gets rid of the guttural in the first syllable. *Meatix*, a word recorded by Diefenbach from Sumerlaten, is evidently this word still further corrupted. It shows us the word *actis* reduced (though only in combination) to the form demanded by the German *attich*.\*

Actenbeere (=berry) and a few other words† are direct descendants of the Greek.

Adrech and retich (German, Diefenbach), and reddik (Danish, Jenssen-Tusch) seem to be the offspring of a mistake. *Meatrix* is a true Latin word: some copyist coming across *meatix* in a glossary, corrected, as he thought, to *meatrix* (Diefenbach *Gloss. Lat.-Germ.*). In some German dialects the syllables *atrix* would regularly become *adrech*, and the forms *retich* and *reddik* are perhaps examples of the frequent shunting of a liquid consonant to the beginning of the first syllable of a word.

\* Adag, haddig, and ottich are dialectic forms recorded by Nennich; adeke, adeck, adich (Dutch), adek, adik, etich, adieh, aaldich, adche, attich-krut or -kruyt (German), attah, atach, atche, attich, and atieh (high German) are given in Diefenbach's *Gloss.* Lat.-Germ. under *EBULUS*; attich, atoch, and atche, under *MEATIX*; and latich and attich under *CAMEACTIS*. These are all mediæval forms: Atuh and ntah are old high German (Graff). *Attich* is a name for *S. ebulus* in the Unterwalden (Switzerland). *Attig* is used by Hohberg; it comes from *attich*, as *essig* and *billig* from *essich* and *billich*. It may be interesting to note that the German *ättich*, *hectie*, is from the Greek *hektikos*.

† Achtenstaude (=bush), recorded by Nennich; actenstande, acke, acten, given by Diefenbach; acten, used in Lucerne, Unterwalden, and Berne; acken by the Oberland Bernese; and actenbeere in the Grisons.

\* Dr. Rutherford is so far correct in his conjecture that the whole stock of euonymin in the hands of the agents for Messrs. Tilden & Co. was exhausted within a few weeks of the publication of his report.



In Turner's "Libellus de re Herbaria novis" (1538) Chameacte is still retained as the title of *Sambucus ebulus*, while *S. nigra* is called Sambuca. On the strength of the words "a græcis acte . . . vocatus," which occur in this place, Halliwell has included it in his dictionary of old English words, and from Halliwell it has been transferred to Britten and Holland's Dictionary of English Plant Names.

It is far easier to recount the history of acte than to trace its origin. The word in the Greek means "shore" as well as elder tree, and Attica was also called Actæa (in German Attisch = Attic, belonging to Attica). It has been suggested that the tree has received its name because it grows on cliffs by the sea, or is abundant in Greece. But the plant is more often seen cultivated than wild in Greece, and the common elder is not noticeably a shore-loving species. Others have suggested that King Acte has given his name to the shrub, and Linnaeus (Flora Lapponica) derives Actæa, the generic name of the Baneberry, from the classic Actæon. Others have derived *aktē* from the Greek *ago*, "I break," because of the brittleness of its branches. But it is doubtful if *akte* is really connected with *ago* (Curtius, Greek Etymology), and it is not at all easy to break an elder stick in pieces.

### THE WATTLE BARK OF VICTORIA.

A VERY interesting report, dealing with the commerce in wattle bark, has been issued by the authority of the Victorian Houses of Parliament. The report is drawn up by Mr. J. Bosisto, Member of Parliament and President of the Victoria Board of Pharmacy. It records the proceedings of a Board appointed in January of the past year, and occupies 66 large pages. The abstract which follows indicates briefly all it contains of interest or importance.

Thirteen years ago large areas of sandy soil in Victoria were covered with a dense growth of small trees, called wattles, belonging to three species of *Acacia*. At that time little or no commercial use had been found for them; they were considered as weeds, and were eradicated by the landholders as completely as possible. At that time nearly all the raw hides produced were exported, and hardly a single tannery existed in the colony.

In the year 1877 there were in Victoria 96 tanneries in full operation, employing an aggregate of 1,150 hands, and consuming annually 12,000 to 15,000 tons of wattle bark. In the same year 1,915 tons of leather, valued at 199,301*l.*, with more than 50,000*l.* worth of bark, were exported, while the export of raw hides amounted to less than 3,000*l.*, instead of 11,000*l.*, its value in 1870. At the same time the value of wattle bark has increased in eight years from 2*l.* 5*s.* to 5*l.* 5*s.* a ton.

The *Acacia pynantha*, *A. decurrens*, and *A. dealbata* yield all the bark brought into commerce as wattle bark. All of them are small trees, rarely attaining a height of 20 feet.

*Acacia pynantha* is known as the "Golden," "Broad Leaf," or "Green" wattle. It is a tree of comparatively slow growth and small dimensions; its bark is thin, smooth, and light, and yields 45 per cent. of tannin.

*Acacia decurrens* is known as the "Black," the "Feather-leaf," and, more rarely, as the "Green" wattle. It is common and widely spread in Victoria; it grows rapidly and vigorously, and, at the proper seasons, is easily stripped of its bark, which it yields in considerable quantities. Its yield of tannin, when grown on sandy soil, amounts to 40 per cent.

*Acacia dealbata* is called the "Silver" wattle. It grows in damp localities; in vigour of growth and in dimensions, it is nearly equal to the "Black" wattle. But its bark is much inferior both to the "Black" and "Broad-leaf," and is never knowingly bought by the tanners. It is, however, frequently stripped, chopped, and mixed with the better qualities.

Owing to the immensely increased demand and value of the bark, the practice of stripping the trees has rapidly spread during the last few years, so much so that the wattles have been nearly exterminated in localities which are in easy communication with the coast or with large towns, and, in large districts, owe their preservation only to the difficulties and cost of transport. The tanners of the colony seem to have feared the failure of the supply. This would

have at once destroyed their business, as tanning could not be profitably carried on if the raw materials had to be imported. The export of leather would have decreased, while that of raw hides would have resumed or surpassed its former dimensions. In the report before us we are not informed of the proceedings which led to the appointment of the Board of Inquiry, but from other sources we gather that the exertions of the tanners secured the imposition of an export duty of 3*l.* per ton on bark. "The impost came into operation on July 1, thereby entirely annihilating the export trade. The tanners, having a monopoly thrown into their hands, reduced prices below cost of production" (*Australian Trade Review*, August 8).

This was foreseen, and the threatened impost begot a vigorous remonstrance from the cultivators, the strippers, and the exporters of bark, as well as from the intermediaries concerned in the trade. A Board of Inquiry, consisting of Baron F. von Müller, Government Botanist, and of Messrs. Dixon, Bosisto, King, Fincham, Rees, and Cope—all Members of Parliament—was appointed. They were to consider and report on the probability of the extermination of the wattle trees, of the value of the commerce supported by them, and on the best means of encouraging it; at the same time conflicting interests were as far as possible to be reconciled. After two or three days' work in the Parliament House the Commission started to inspect the wattle-producing districts. Within two days they left the railway behind. Travelling, now in carriages, now on horseback, and again on foot; rowing themselves in boats; one night camping out, on another sleeping on the bottom of their boat; they traversed during one excursion of 12 days 800 miles, 300 of which were over heavy bush roads. Before the Board had accomplished its task it had travelled 2,000 miles, and heard the evidence of 200 witnesses.

What they learnt is embodied in the report before us, and is a repetition of the old old story. Here, as in older countries, the greed of men is so short-sighted that unless prevented by some provident authority it would in a few years destroy its own livelihood.

Before the appointment of the Commission the stripping of bark was practically without restriction. Strippers were required to cut down each tree before stripping, and to take out a quarterly licence, costing 25*s.* This entitled them to "strip" on all Crown lands; but, easy as were these regulations, they were often evaded, as it was well known that the fine inflicted by country justices on unlicensed or illegal strippers hardly ever exceeded 2*s.* 6*d.* or 5*s.*, and the difficulties of detection and conviction in a large unsettled district are practically as prohibitory as the 3*l.* export duty.

The Commission consequently found that accessible wattle-growing districts had been reduced to forests of bleached trunks. Hardly a tree had been felled, and the bark of the branches had, in most cases, been left to rot on them, although it equals in weight, and surpasses in value, that on the trunk. The wattles come to maturity in from 15 to 20 years, and rarely retain vigorous health after this. The black wattle is fit for stripping when 5 to 10 years old, when it is about 4 inches in diameter. The broad-leaved wattle should be older, and not less than 5 inches in diameter. A well-grown tree will sometimes yield half a hundredweight of bark. It has been the practice for some years past, which has been growing with the increased scarcity of the tree, to strip every sapling which could yield a few ounces of bark. Shoots no bigger than whipsticks have been denuded, while the bark on the branches of larger trees has been left to rot. The strippers have only cared to increase the quantity they could gather in a single season, without caring in the least for future crops.

Experience shows that wattle bark reaches its maximum of tanning power in the months of September, October, November, and December. At these times "the sap is rising," and the bark is easy to strip, while the heat of the summer sun serves as the best and cheapest possible exsiccator. But bark-strippers seem to have acted on the theory that whenever the bark can be separated from the tree it is fit for the market, and that no amount of damp can change tannic into gallic acid, or affect the value of the bark. The immaturity of the bark and its more careless collection have reduced its quality as a tanning agent so much that, as a Victorian tanner declared, 581 tons of bark are now required to produce the same effects as 400 tons in former years.



For many years past Baron Müller has urged that wattles should be cultivated on the lands adjoining railways, and on other grounds which at the present are practically waste. The struggle for existence is constant between grass and wattles. Good grass cannot flourish where wattles abound, and this has led to active efforts at extermination on the part of the sheep farmers. But the soil in many districts is so full of the seed that the mere clearance of a patch is sufficient to produce a fresh crop of the trees. Bush fires sufficiently fierce to destroy the existing trees are invariably followed by a close and vigorous upgrowth of seedlings. Besides bush fires and settlers, wattles have to endure the attacks of a species of coccus, and, after the age of 12 or 15 years, of a species of beetle, which speedily ensures their decay. But no plant seems more easy of cultivation. The seeds, after soaking in water nearly boiling, may be drilled or sown broadcast over lands, the surface of which has been "tickled." Attention to pruning and thinning is all that is subsequently required, and in one existing case two boys who mind the sheep have been taught to do all that is necessary. The cultivation might be made very profitable in accessible districts. One witness alleged that if success were obtained equal to that in Tasmania, one acre would produce, in ten years, 100 tons of bark, valued at 5*l.* 10*s.* a ton, and posts, rails, and timber worth 100*l.* The timber is useful for a variety of purposes, for which hazel, alder, hickory, ash, or elm would be used in England. Neither of these trees is found in Australia. The small wood is the best fuel in the colony. The trees produce gum in sufficient quantity to make its collection profitable. The leaves are suspected to contain sufficient tannin to make an extract valuable, and experiments are being made to discover whether the bark can be profitably converted into an extract so as to save the expense of carrying a bulky article over long bush roads. The waste wood can be converted into charcoal and potash, neither of which industries seems to have taken root in the country. The regulations proposed by the Board seem to meet in every point the evidence they obtained. They are chiefly of local interest, for only those on the spot can form an accurate estimate of their probable effects. We will simply quote the opinion of an authority. "The Government, on the recommendation of the Parliamentary Commission, have already introduced a Bill for the rescinding of the export duty, which, if it were continued, would be most inimical to the interests of the labouring classes engaged in this growing industry." This implies high praise of the wisdom of the Commissioners and the value of the regulations they propose.

#### KENT'S BRUSH FACTORY.

SOMEbody once asked what became of all the old pins, and we are not aware that any sufficient reply has yet been offered. The number swallowed is clearly unequal to the number produced, and neither chemical decomposition nor natural forces concern themselves with these objects. And yet the pin mills work on incessantly, and millions of new ones spring into existence with every turn of the earth's axis. Surely the world ought to be paved with pins knee deep by this time, if the ordinarily-received scientific theory that matter cannot be destroyed were true. We leave this unsolved riddle to suggest another like unto it, which seems to us more inexplicable still—What becomes of all the old businesses? We have been a nation of shopkeepers for centuries, but, without going too far back, let anyone consider how many—or, rather, how few, of those businesses which existed when Buonaparte reminded us of the fact, remain to this day. One might have supposed that a business which had existed for 40 or 50 years was pretty nearly secure of immortality. With a settled "connection" and established "reputation," and in most cases a good accumulation of capital, one would be inclined to say that such a business could not step quietly and unnoticed into obscurity and annihilation, even if it would. And yet it seems as if the majority of them must do this. Centenarian businesses are almost as rare as deceased donkeys. The few businesses intimately connected with the drug trade which can boast the record of a hundred years might almost be counted on

the fingers, and if we limit the calculation to those which have been retained by a single family in direct succession, the fingers of one hand would probably suffice. The only ones which occur to us as we write are Horner's, the druggists who claim an origin somewhere in the dark ages, and who had soaked Bucklersbury with the scent of spices when Shakespeare strolled that way; Newbery's, the patent medicine dealers, with a record of over a century's preparation of James' powder; and the house respecting whose business we propose now to write a few paragraphs.

G. B. Kent & Co., brushmakers, announce on their door-plate in Great Marlborough Street, that their concern was established "A.D. 1777." The scrupulous veracity with which they guard against any possible misconception in the mind of the passer-by, by the addition of the letters "A.D.," is a point worthy of remark. William Kent, the founder of the concern, was the grandfather of the present principal, and two sons of the latter assist now in the management, so that four generations of one family have already devoted their energies to the advancement of this business. A few years before the century was completed the extensive premises in Marlborough Street, in which the business has been conducted for more than 70 years, became too strait for the requirements of the firm, and since 1875 that building has been occupied solely for stock, show-rooms, and offices, a large steam factory having been erected in the neighbourhood of Victoria Park.

Within the first forty years of the firm's existence they became possessed of a patent in respect of the manufacture of hairbrushes, the working of which had a considerable influence in establishing their position. The patent was described as a "spiral" method of arranging the bristles, and was the first attempt to make the bristles more penetrating by the simple expedient of arranging them irregularly. Previously each little bunch of bristles was quite level, like most other brushes, and some hairbrushes are so made still; but by the "drawer" taking each bunch and manipulating for a moment with her fingers before passing it through the wire loop an irregular surface and a greater length of bristle is obtained. The patent brushes thus made became so popular that the other makers began to get alarmed lest Kent's should secure a monopoly of the trade. They took counsel together and resolved to fight. One of their number was put forward to manufacture, and to advertise to the world brushes made on this principle. A law suit ensued, and ultimately Kent's patent was declared invalid on the ground of incorrect description. The Court refused to recognise the word "spiral" as an accurate description of the irregular arrangement of the bristles.

Besides their staff at Great Marlborough Street and at their branch in Dublin, Messrs. Kent & Co. employ 400 persons in their Victoria Park factory, a large proportion being women and girls. The foreman, Mr. Hickman, has been in the service of the firm for 61 years, and his son, who now superintends various sections of the work, has been engaged in the "house" for 38 years. The two, therefore, have been occupied in the business between them for exactly the period which reckons the history of the firm.

The processes to be seen at Messrs. Kent's factory are multitudinous, and are partly accomplished by manual skill, partly by steam machinery. A toothbrush of any quality, for instance, passes through more than 40 operations on the bone and bristles, and on both together, before it is ready for sale. First the bones (ox leg-bones) are taken, roughly cleaned, and cut into pieces of about the necessary length. They are then put into a machine which "profiles" them. Next they are "fashioned" into the stocks. They are then boiled and well washed with turpentine to remove the grease; after drying they are exposed in glass frames on the roof to bleach. Afterwards they are given out to be drilled. This is done by a girl holding the back to a drilling-needle revolving by steam power. The girl herself has to regulate the borings with exactness. Another machine "graves" them; that is, makes the three or four lines of slots at the back which correspond to the lines of the borings. Other girls "draw" them, that is, pass wires through each hole in loops, catch in the loop a small bunch of bristles, and draw the wire tight. The bristles have, of course, passed through a history also before they are ready for the drawer. The wires have next to be laid so as to make them smooth; the backs of the brushes are then



waxed; another hand cleans off the superfluous wax, leaving only lines where the slots were; and there then follow several more processes of washing, drying, clipping, stamping, and boxing before the brush is quite finished.

Some toothbrushes, and all ivory brushes, are "trepanned"—that is, they are bored only half-way through the stock, and then meet canals which have been delicately tunnelled by hand-labour between the upper and under surfaces. Silk or cotton threads are passed through these canals, and the bristles are secured by these. The ends of the canals are finally blocked by pegs.

Ordinary hairbrushes are all wire-drawn, but in these there is an infinite variety of patterns, woods, and bristles, necessitating many more operations in sorting the bristles, cutting and polishing the woods, veneering, and so on. Some brushes are made with leather backs, so as to make them more pliable. This method is especially suitable for clothes brushes.

The selection of bristles is, of course, a most important part of the business of a brushmaker. These come chiefly from Russia, Germany, and France. They are obtained from the backs of hogs, but the dressing and preparation make them very costly. Those used for hairbrushes are known as black, grey, yellow (or unbleached), white (or lilies). A delusion exists in the minds of many people in regard to the kind known as unbleached. These are simply the yellow bristles. All are subjected to a bleaching or cleaning process, the so-called unbleached as well as the rest. Messrs. Kent & Co. import bristles direct, and they store many thousand pounds' worth in a small room about as big as an ordinary surgery. They also prepare, on the premises, badger hair from the skins. The skins are bought at the Nijni Novgorod fair, and just now, in consequence of the precautions taken by the Russian Government to prevent the spread of the plague, they are very dear and difficult to obtain. There is much difference in the value of badger hair, the long straight hair obtained from the back being far preferable to that taken from the flank. Among the other materials of which brushes are made may be mentioned goat hair, horse hair, piassava or bass for scavengers' brooms, whisk, for carpet brooms, cocoa fibre, or white Mexican fibre, for cheap scrubbing brushes, squirrel-hair, for the so-called camel-hair pencils; and sable-hair, used by carriage-painters in small brushes for very delicate work, are among the varieties of material employed in a brush factory. The last named is by far the most expensive, costing in the market at the present time 36l. per pound. Elephants' tusks also form a part of the stock of raw material in this brush factory. The ivory trade is a very speculative one. The tusks are sold in their natural condition, and there is no means of estimating their value until they have been sliced. A vein running through the middle of the slice—which is not at all an improbable event—will seriously diminish its value, as only small articles can then be made from it.

Painting-brushes, brooms, and other of the commoner house brushes are made in different ways. In many of them the bristles are fixed by the aid of pitch into holes drilled into the stock. Whitewashing-brushes are tied to the stock, the string being specially prepared to prevent its rotting by wet. Dusting-brushes are made by placing a number of bunches of bristles in a hole, and hammering a wedge in the middle of them to keep them secure. Machinery is largely employed in this factory, and some special inventions are very ingenious. Among these may be mentioned machines for drilling the backs of brushes by unskilled boy labour; others for inlaying or sinking, rounding, shaping, trimming the bristles, and planing the backs; others for manufacturing hand mirrors, turning wood, bone, and ivory, and others for cutting up logs of choice woods such as satin, rose, or ebony into the necessary shapes and sizes. It is obvious that a full description of the various processes employed in the brush manufacture would occupy a volume rather than an article, the sketch that we have given being the merest outline of the processes we saw during a visit to Messrs. Kent's works occupying two or three hours.

It will indicate how important a branch of the trade is that of toothbrushes if we mention that in the factory 122 hands are employed exclusively on these, and that in the week preceding our visit between 11,000 and 12,000 were recorded as having been "drawn." The number of patterns of toothbrushes in Messrs. Kent's stock-book reaches about 130.

## THE CHEMICAL SOCIETY.

Thursday, February 20.

DR. GLADSTONE, President, in the chair.

The following papers were read:—

"On Colouring Matters Derived from Diazo-compounds," by Dr. O. N. Witt. For some time after the introduction of aniline dyes, though magentas, violets, and blues were obtained in profusion, no choice of yellow or green tints was to be had. A few years back, however, a beautiful yellow dye, chrysoidin, was described by Hoffmann, and since that time numerous patents have been taken out for the manufacture of similar substances. In the present paper the author gives an account of these various substances which are oxy or amido derivatives of azobenzene, including the different tropæolins.

"Investigations into the Action of Substances in the Nascent and Occluded Conditions.—Hydrogen;" continued by Dr. Gladstone and Mr. Tribe. The authors have investigated the actions of nascent hydrogen obtained by electrolysis, and hydrogen occluded in palladium or platinum, on nitric and sulphuric acids; they establish a close similarity of character, and therefore of condition, between the so-called nascent hydrogen and the hydrogen occluded by metals.

"On Some Methods of Vapour Density Determinations," by Mr. J. T. Brown. The author criticises the methods and formulæ of previous experimenters, and suggests the determination of the vapour tensions of mercury by estimating the vapour tension of a substance over Wood's metal and over mercury at different temperatures.

"On the Decomposition Products of Quinine and the Allied Alkaloids," by Mr. J. J. Dobbie and Dr. W. Ramsay. The authors have oxidised the four principal alkaloids derived from cinchona bark, and find that they all yield on oxidation the same acid—tricarboxypyrindic acid; they also point out that there is a close relation between the cinchona bark alkaloids and the bases of the pyridin series.

Thursday, March 6.

DR. GLADSTONE, President, in the chair.

The following papers were read:—

"On the Quantitative Blowpipe Assay of Mercury," by G. Attwood. The method consists of distilling the compounds, either alone or mixed, with litharge or with oxalate of potash and cyanide of potassium in ingeniously-contrived retorts of glass or steel, the whole apparatus being 3 to 4 inches long, collecting the mercury in water, and weighing it when dry.

"On some Points in the Analysis of Combustible Gases, and in the Construction of Apparatus," by J. W. Thomas. The author has succeeded in exploding marsh gas, &c., with almost theoretical quantities of oxygen, by using a diminished tension, about 50-160 mm. As less oxygen is thus required the author has shortened the eudiometer tube to 500 mm., and thereby increased the delicacy of the apparatus; he has also reintroduced a steel tap, of, however, perfect tightness, and has in several points perfected and simplified the ordinary Frankland's and McLeod's apparatus. The steel face-plates connecting the laboratory and measuring tube have been abandoned.

"On the Action of Isomorphous Salts in Exciting the Crystallisation of Supersaturated Solutions of each other, and some Experiments on Supersaturated Solutions of Mixed Salts," by J. M. Thomson. The author finds that a crystal to act as a nucleus must be not only isomorphous but chemically similar, as regards water of crystallisation, to the substance in solution. Interesting results were obtained by introducing a nucleus into a supersaturated solution of two non-isomorphous bodies; under certain conditions a separation of these two bodies could be effected.

"On the Isomeric Dinaphthyls," by Watson Smith. The author has determined the vapour densities of the dinaphthyls by means of V. Meyer's new apparatus, and gives in his paper the results of the reaction of carbon tetrachloride, chloroform, &c., on naphthalene.



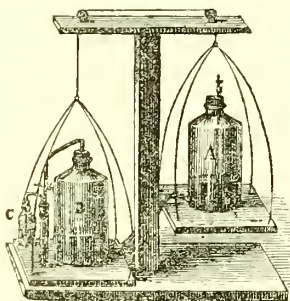
## Inventions.

### THE COBALT HYGROMETER.

UNSIZED paper, as thin blotting or filtering paper, is dipped into a solution of chloride of cobalt, common salt, and a little gum arabic. It is red at first, but while drying becomes more pink, bluish-red, and finally blue when quite dry. As the paper thus prepared is slightly hygroscopic, it will easily attract atmospheric moisture, and be coloured more or less reddish in proportion as it finds more moisture to attract.

### SULPHURETTED HYDROGEN APPARATUS.

DR. R. C. COOLEY describes in the *Scientific American* a form of apparatus for the ready and inodorous generation and application of sulphuretted hydrogen, and a copy of his drawing accompanies this explanation. The apparatus is



mainly a strong wooden balance. On one platform stands a bottle (A) about half full of dilute sulphuric acid; on the other platform is the bottle (B) containing fragments of ferrous sulphide on a thick layer of broken glass. The bottles are tubulated near the bottom, and connected by a piece of thick rubber tubing, rendered impervious to gas by immersion in melted paraffin. In order to generate the gas it is only necessary to depress the platform of the balance on which bottle B rests. The drawing shows the apparatus in use. The gas is being conducted to a solution in a test bottle, and the surplus is carried off into another bottle (C) containing ammonia, which will completely absorb it. By a nipper-tap the supply of gas is cut off instantly. Dr. Cooley states that a single apparatus, with bottles of one gallon capacity, has furnished the gas needed in the Vassar laboratory for the last three years, the classes numbering from 25 to 50 students. The exhausted acid is easily replaced, and the ammonia removed from time to time as may be necessary.

### THE ELECTRIC LIGHT.

EDISON'S patent for the electric light was at first refused by the Patent Office at Washington (though it was afterwards granted) on the ground that it infringed the patent of one John W. Starr, of Cincinnati, filed in 1845. Starr's invention was a combination of metallic and carbon conductors, and the story told respecting it is a somewhat tragical one. Having filed a caveat in America, he came to England to complete his invention, bringing a Mr. King with him as agent, and furnished with some money by a couple of Americans and with an introduction to George Peabody. Peabody undertook to provide capital if Professor Faraday should approve of the invention. Starr then worked hard at his invention. He took it to London and exhibited it to Faraday and other electricians. The professor pronounced it a perfect success. Starr and King went back to their hotel, and, after taking a frugal meal, retired. The next day Starr was found dead in his bed. Excitement and an overworked brain had caused his death.

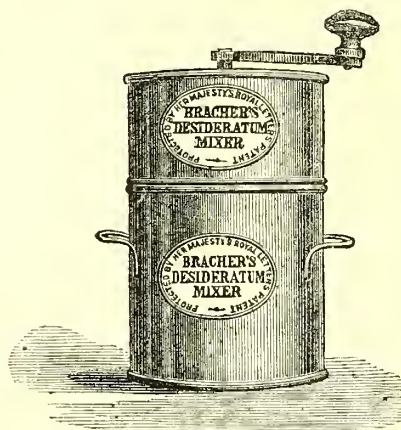
### REPORTING MACHINE.

In the Italian section of the Paris Exhibition was exhibited an instrument called after the name of the inventor, *La Machine Stenographique Michela*. It is declared that

after a fortnight's practice any person of ordinary ability can take down in shorthand characters any speech, however rapidly delivered. It is a small instrument, piano-like in form, with 22 keys, white and black, and the stenographic characters are small and impressed on slips of paper. Signor Michela claims to have classified all the sounds which the human organs of speech are capable of producing, and by using this machine he says one can report a speech in a language which is not understood by the reporter.

### BRACHER'S DESIDERATUM MIXER.

THIS machine, which has been recently patented, affords a very rapid and easy means of thoroughly mixing fine or coarse powders. It is a block tin vessel, in the middle of which is fixed a spindle, attached to which are eight sloping blades. Over the vessel a sieve with brass meshes, either fine or coarse, is fitted, and the spindle passes through this also. A heavy cross is fitted on to the spindle in the sieve, and a handle to the top. The powders being put into the



sieve, the spindle is revolved, the cross breaks any concrete lumps and rubs the powders through the meshes, and as they fall through into the receiver they are very perfectly mixed by the sloping blades, which constantly, one after the other, bring the lowest layers to the surface, and *vice versa*. It is in this section of the machine that the novelty and ingenuity chiefly consist, and we are confident that it will be found to save labour to a great extent. The apparatus is made in various sizes by the inventor, Mr. P. H. Bracher, of Wincanton, whose advertisement gives further particulars.

### A NOVELTY IN ELECTRIC LIGHTS.

ONE of the latest novelties in the matter of electric lighting is described in *Design and Work*. A Mr. James Tyman states that by using the hind wheel of his bicycle as a motor for the magneto-electric machine, and having the carbons, with necessary adjustment, fixed on the front of his bicycle, he obtains a light equal to 120-candle power. The cost of the apparatus is about 5*l.*, and the only drawback to this invention is that directly the rider stops he is left in total darkness.

### INK SUPERSEDED BY PENCILS.

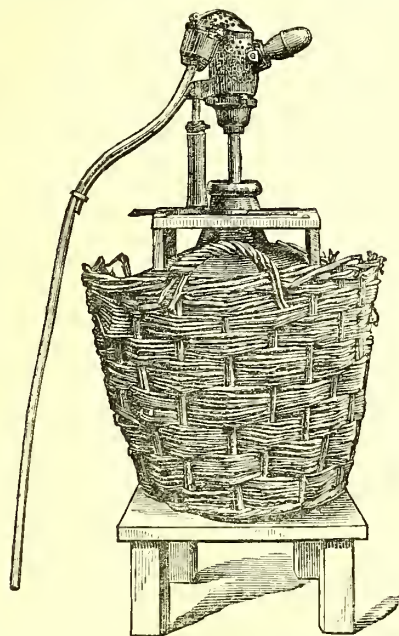
PENCILS have been lately invented which make marks more permanent than those of ordinary inks, and can be copied by pressure. The process is as follows:—

Ten pounds of the best logwood are boiled repeatedly with 100 lbs. of water, and the decoction evaporated to 100 lbs. This liquid is heated to boiling in a porcelain dish, and nitrate of chromium added in small quantities until the bronze precipitate that forms at first dissolves again with a deep blue-black colour. It is then evaporated on a water bath to the consistency of an extract, and finely-elutriated fat clay mixed in, so that there is 1 part of clay to 3 or 3½ parts of extract. A little gum tragacanth may be added, according to the hardness desired.



## THE NICHOLS ACID PUMP AND SYPHON.

THE apparatus shown in the accompanying engraving is an American invention which has been lately introduced into this country, and for which Messrs. Barnett, Son & Foster are agents. Its value will be readily appreciated by mineral-water makers and others who have frequent occasion to draw the strong acids from carboys. The pump may be attached to any carboy with the greatest ease, and it may be detached



and transferred to another just as conveniently. It is constructed chiefly of glass, protected by iron, and is worked by pressing a gutta-percha ball, when the force of the air, acting on a couple of valves, causes the liquid to rise in the tubes in a few moments. The stream once obtained, the liquid continues to flow, the apparatus being at once converted into a syphon; but it may be stopped in an instant, so that any quantity, from a wineglassful to the carboyful, can be drawn off with equal facility.

## SUNSHINE AT NIGHT.

SELF-LUMINOUS dials have recently attracted some attention. O. Mathey, chemist, Neufchatel, states that the dials are usually made of card enamelled like visiting cards, and covered with adhesive varnish or white wax, mixed with a little turpentine, upon which finely-powdered barium sulphide is dusted through a fine sieve. This salt retains its phosphorescence for some days. Its luminosity is restored by exposing it to sunlight for an hour, or by burning near it a few inches of magnesium ribbon. Calcium and strontium sulphides possess a similar property, but lose it more quickly. Professor Henry Morton, of Stevens Institute of Technology, U.S., asserts that calcium sulphide is used, and suggests that if the walls of rooms were coated with the sulphide, enough light would be absorbed during the day to avoid the necessity of artificial light, and that, if houses were painted with it, street lamps would be unnecessary.

**ALLEGED ROBBERY.**—On Tuesday last a packer named Henry Carter was brought before Sir Robert Carden, at the Guildhall, charged with having broken into the warehouse of Messrs. Lynch & Co., druggists' sundriesmen, the previous night. The man had previously been in the employment of the firm, and he said he had gone in the warehouse to sleep on some straw, and waking found all the doors locked. A few new tobacco pouches were found on him. The prisoner was remanded.

## Obituary.

**BAMFORD.**—On January 31, 1879, Mr. James Bamford, chemist and druggist, Bradford. Aged 55.

**BREMNER.**—On November, 26, 1878, Mr. William Bremner, pharmaceutical chemist, Thurso. Aged 78 years. Mr. Bremner had been a member of the Pharmaceutical Society since 1846.

**DENTON.**—On January 18, 1879, Mr. Henry Thomas John Denton, chemist and druggist, Exeter Street, Plymouth. Aged 48.

**DORVAULT.**—M. François Marie Dorvault died on February 16 at Paris. He was in his 64th year, and had acquired a world-wide reputation as a practical pharmacien. Dorvault's "Officine" is the recognised chemists' companion in France, and is largely referred to in other countries. M. Dorvault was also the principal editor of the *Union Pharmaceutique*, and was the founder and one of the proprietors of the Pharmacie Centrale, of Paris, in the Rue de Jouy. M. Dorvault's death was due to brain disease.

**EVANS.**—On January 12, 1879, Mr. Daniel William Evans, chemist and druggist, Llanstephan, Carmarthenshire. Aged 26.

**FOSTER.**—Mr. Peter le Neve Foster, M.A., whose services as secretary of the Society of Arts during more than a quarter of a century are well known far beyond the circle of that society, died suddenly on February 20, in his 70th year. He is succeeded in his office by Mr. H. Truman Wood, B.A., who has for some years edited the Society's journal.

**FRY.**—Mr. Joseph Fry, of Bristol, who until recently was the head of the celebrated cocoa firm, died on February 18 at the age of 83. The deceased gentleman was the son of Mr. Joseph Storrs Fry, who founded the firm, and was the father of Mr. Justice Fry, and of the recently-elected M.P. for Bristol, Mr. Lewis Fry.

**GEISSLER.**—Dr. Heinrich Geissler, the inventor of Geissler's tubes, died at Bonn, Germany, on January 24. He began life as a glass-blower, and after some years of wandering, settled down as a glass-blower to the University of Bonn, where he won a world-wide reputation.

**MOODY.**—On February 1, 1879, Mr. Thomas Sullivan Moody, chemist and druggist, Great Quebec Street, London. Aged 22.

**NOWERS.**—On January 26, 1879, Mr. Edward Alfred Nowers, chemist and druggist, Lydd, Kent. Aged 57.

**PETERS.**—On January 6, 1879, Mr. Henry Peters, chemist and druggist, Birkenhead. Aged 38. Mr. Peters had been a member of the Pharmaceutical Society since 1869.

**SCHOFIELD.**—On February 10, at Loughborough, after a short illness, Edward Farrar Schofield, chemist and dentist. Aged 53.

**SILVERLOCK.**—On March 4, Mr. Henry Silverlock, of Wickham House, Wickham Road, New Cross, and 92 Blackfriars Road, London, formerly of Doctors' Commons, E.C. Aged 77.

In the hands of Mr. Silverlock, the medical label business which he established had grown into a most extensive concern, and his name had become familiar to all British chemists. He retired from active participation in the business owing to increasing infirmity only a few years ago, leaving the management to his son, who succeeds him.

**SONNENSCHN.**—The death is announced at Berlin of the well-known chemist, Professor Sonnenschein. He had only reached the age of 62. He was one of the chief authorities in all matters of chemical analysis.

**TOWLER.**—On February 11, 1879, Mr. Wm. Towler, chemist and druggist, of Chapel Street, Bedford, Leigh, Lancashire. Aged 51.

**WELLER.**—On December 28, George Weller, Esq., J.P., Queen's Terrace, Windsor. Aged 68. For many years the principal in the firm of Foster & Weller, of High Street, Windsor.

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## UNGUENTUM PETROLEI. See page 92.

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## HOMŒOPATHIC MEDICINES,

Mother Tinctures, Pilules, Globules, Sugar of Milk, Medicine Chests and Cases, Glass and Cardboard Goods, and all Sundries connected with the Homœopathic Business.

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## STEDMAN'S TEETHING POWDERS.

1/1½ size (containing 9 powders).....	8/6 p.r doz.	} less usual } discount.
2/9 " " 27 " .....	24/- " "	
11/- " " 216 " .....	11/- net.	

A mixed parcel to value 78/- net, at 6/6, 18/-, & 120/- per doz.

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**SANITAS (FLUID)** preserves food and prevents fever. In hottles (1st quality only) at 1s., 1s. 6d., and 2s. 6d.; in gallons at 20s. (1st quality), and 5s. (2nd quality).

**SANITAS DISINFECTING POWDER.**—In 1 lb. tin boxes at 1s., or in bulk.

**TOILET SANITAS.**—As a mouth-wash; for the bath; and for all the purposes of toilet vinegars. In elegant bottles at 2s. 6d.

**TOILET SANITAS SOAP** embodies the healthful principles of Sanitas. In boxes of three tablets at 1s. 6d.

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PAMPHLETS AND PARTICULARS FREE ON APPLICATION.

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## HAWKER'S JUJUBES. See page 5.

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Are desirous of appointing Agents for the Sale of their Preparations in various parts of the United Kingdom and the Colonies.

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## PURE COD LIVER OIL. See page 74.

## EDITORIAL NOTES.

### THE PATENT MEDICINE TRADE.

It would be fantastically utopian to expect much aid from the proprietors of established patent medicines in view of the serious and wide-spread evil of offering proprietary articles at a merely trifling percentage over the cost. It may, however, be as well to remind them that their interests are rapidly falling into the hands of co-operative stores and cutting shopkeepers, who will care as much for them as they have done for their own competitors. The end of it will assuredly be that the best chemists throughout the country, and there are some thousands of these remaining yet, will not care to trouble themselves about a trade the profits of which will not pay for investing in the stock. Other patents will spring up, the owners of which will cater for the friendship of the chemist who does not cut prices, by guaranteeing that their products shall be supplied to none but such; and perhaps some of those



colossal firms who now affect to despise the retailer will discover, when it is too late, that the influence of the chemist can be exerted either for or against the interest of the patent medicine proprietor.

The scheme suggested by the French pharmaciens, and described in another article, is one that merits attention. It is to allow the manufacture of any compound medicine, but to insist that the formula shall be inscribed in a book, copies of which shall be obtainable, and to let anyone who pleases prepare a similar article. The sale of secret medicines to be rigorously prohibited. The scheme would hardly be practicable except with the concomitant conditions of pharmacy which are possessed elsewhere, but there is no doubt that such a proposal would have the support of the whole of the medical profession and of a good section of the legislature.

### MELBOURNE EXHIBITION.

AN important International Exhibition is to be opened at Melbourne from October 1, 1880, to March 31, 1881. Mr. Thomas B. Hill, of the Treasury, Melbourne, is the acting secretary, and arrangements are now in progress for the formation of European Commissions. Facilities for the sale of the exhibits will be provided. The prospectus says:—The fact that Australasia has been represented in all the Great Exhibitions of the world since their inception in the year 1851, and the advance she has made in productive industry, the extent of her commercial relations, and the high position to which her imports and exports have attained, indicate that she has now reached the period when she may profitably invite the great manufacturing countries to send the most complete products of their skilled industry to a people who are in a position to become not only good customers but generous competitors. The building is to cost about 95,000*l.*, and information on the subject may be obtained from Mr. George Collins Levey, C.M.G., Secretary to the Commissioners, 8 Victoria Chambers, Westminster.

### THE ANNUAL DINNER OF THE PHARMACEUTICAL SOCIETY.

WE are informed that a meeting will be held at 17 Bloomsbury Square, on Thursday, the 20th inst., at 12 o'clock, to appoint a committee to make arrangements for the eighth annual dinner of the members of the Pharmaceutical Society and their friends. The subject has already been under the consideration of a preliminary committee, who suggest that the dinner shall take place at Willis's Rooms on Tuesday, May 20, and that the expenses hitherto borne by stewards shall be paid out of the proceeds of the sale of tickets, the price of the tickets being raised accordingly. The President will take the chair, and all gentlemen interested in this annual gathering are invited to attend.

### THE DENTAL ASSOCIATION.

THE dentists have secured to themselves the use of several titles which will imply a definite qualification in those that assume them in the future. But such titles have a tendency to deteriorate in value unless the interested parties keep a close watch on the administrators, and incite them by complaint and agitation to an energetic performance of their duties. This has been recognised, and a society has been established under the title of the Dental Association, which is to watch over the interests of the profession, with special reference to the proper carrying out of the Dentist Act of 1878, and which has full authority to organise special committees for the establishment of a dentists' benevolent fund

for the assistance of infirm and disabled members of the profession, and for any other object that may appear desirable.

Only duly-qualified practitioners will be admitted, and it will be supported by annual subscriptions. The past and present members of the Executive Council were appointed a representative board to carry out the resolutions. The Association has a niche ready for it to fill, and we wish it success in its work. March 3 was its natal day, and Willis's Rooms, London, was the place of its birth. A numerously-attended meeting of members of the dental profession stood as its sponsors.

### PITURI.

AT the last meeting of the Linnean Society Mr. Thomas Christy, F.L.S., exhibited a series of specimens of pituri, which had been sent to him from Australia by Dr. Bancroft. The specimens, though by no means large, were believed to be the finest in Europe. Mr. Christy stated that he had that morning received from M. Petit, of Paris, a letter announcing the discovery of nicotine in the drug, and that he had received by telegraph a confirmation of the discovery. A short discussion followed, in which Mr. E. M. Holmes took part. He recalled the fact recently published in the *Lancet* by a doctor of Australian experience, that the natives had already named tobacco "white pituri," showing that they had observed that the drugs had some properties in common. He reminded the meeting that Mr. Gerrard had discovered in pituri a crystalline principle, which he had named "Duboisine," from Duboisia, the name of the genus to which the pituri plant belonged. In this conflict of authorities he considered that both were probably right.

M. Petit's reputation for accuracy is established, but we confess we should prefer to wait for further investigations on larger quantities of the alkaloid before implicitly accepting the statement that nicotine is present in pituri. For 20 years the alkaloid discovered in *Datura Stramonium* was believed to be identical with atropine, and after more than 20 years of further investigation the existence of daturine as a distinct body has only been recently established beyond question. The nicotine of tobacco may be identical with the alkaloid discovered in pituri, but further research may show that they are really distinct substances with many similar properties.

### THE INSTITUTE OF CHEMISTRY.

"A DISGUSTED PROMOTER" writes to the *Chemical News* a letter in which he makes some pertinent comments on the hole-and-corner manner in which the affairs of this loudly-trumpeted concern are managed. Our disgusted friend, who, like the rest of his favoured *confrères*, was admitted to the privilege of paying five guineas entrance fee and two guineas subscription fee when the Association was hatched, has probably not seen the value of his seven odd shillings in return, and he is doubtful whether or not to go on with the amusement. The idea was that members of the Institute would be taken by the public at their own valuation. It was only necessary for a group of them to combine and say "We are the men; wisdom will die with us," and all analytical and testimonial business would fall into their hands. But the spectacle of scientific men calling each other names and professing anxiety for the public welfare had become so stale that the said public could not be whipped into gratitude, and the Council of the Institute are said to be anxiously considering whether anything short of Sir John Lubbock's Ancient Monuments Bill will save them from destruction. It appears from

the Disgusted One's letter that, having done nothing all the year, the Council called a meeting in December, just before the subscriptions fell due, to discuss "Trade Certificates." It has leaked out, says this authority, that the Executive has not dared to publish a report of that meeting, "because nearly all the speakers upheld the system of giving certificates for advertising purposes. They were expected to curse, but verily they blessed them altogether." We congratulate the speakers on their honesty in upholding the method by which they get their living. It would have been perhaps more in accordance with custom if they had frowned upon the system at the meeting and practised it next day. Erasmus is reported to have said that he would very gladly observe Lent, for he had a true Catholic soul, but he found it impossible, for he had an unfortunate Lutheran stomach—and Erasmanian ethics are not uncommon at the present day. If there is any simple moralist, however, who joined the Institute in the belief that the profession was to be freed from one of its greatest scandals by its means, he might as well save his 2*l.* 2*s.* per annum in future; nor do we see what further advantage even the advertising members can get out of the affair; for no one can hinder them from announcing for evermore that they were elected to the Institute of Chemistry in 1878.

### FLUCTUATIONS IN THE PRICE OF OPIUM.

AN analysis of the diagram published in our last issue bearing on this subject, in order to find the average price for each month in the year, yields a rather curious result. The average price for the last 20 years has been:—January, 23*l.* 6*s.*; February, 23*l.* 6*s.*; March, 23*l.* 9*s.*; April, 23*l.* 7*s.*; May, 23*l.* 4*s.*; June, 23*l.* 1*s.*; July, 22*l.* 6*s.*; August, 23*l.* 0*s.*; September, 22*l.* 6*s.*; October, 22*l.* 3*s.*; November, 22*l.* 2*s.*; December, 23*l.* 5*s.* per lb.

These figures show that the normal tendency of the price is towards a steady depreciation from March to November, followed by a very sudden rise in December, continued in the two following months, and reaching its maximum in March. It is curious to note that in August the downward tendency in prices receives a decided check; in point of fact, in 11 of the 20 years there has been a rising market in this month, and in three others the prices, instead of being lower, are the same as those in July.

The practical lesson is, that the purchaser should look out to replenish his stock between August and November; he should be careful not to let himself be caught in want of opium during the four following months, and he should buy sparingly between April and August. Of course there are exceptions to the rule. In 1874 it was best to buy between January and April, as the market steadily rose between May and the January of 1875. In 1862, 1866, 1868, 1872, 1873, and 1874 the rule would have misled, but in the 14 other years it would have been safe to follow it.

### ARSENICAL POISONING AD LIBITUM.

It is somewhat curious that while so much careful attention is given both by Government and by scientific authorities to many of the more harmless forms of commercial fraud, such as, for instance, the dilution of milk by water, or the importation and sale of inferior or exhausted tea leaves—frauds which we have no desire whatever to defend—the much greater dangers resulting from the wide dissemination of arsenical compounds in wall-papers, as well as in various fabrics used for dress or furniture, are legislatively disregarded. The extent of this danger is very vaguely known. It is not limited by any means, as is

popularly supposed, to green colours, as whites, greys, and blues are all found contaminated with the poison. The papers sold as free from injurious matters are not so always in fact; and it may be certainly assumed that thousands of cases of slight and even of serious injury occur which are never even recognised as coming from this source. That a fractional part of actually resulting poisoning can be unquestionably traced to arsenical wall-papers seems to be sufficient ground at least for further inquiry. And as there can be no sufficient justification for arsenical poisoning by this means, whether on a large or small scale, we see no reason why the employment of colours of such deadly character should not be rigidly prohibited by law. Mr. Henry Carr, M.Inst.C.E., has advocated legislative interference in this manufacture very earnestly, and in a small book which he has lately published\* he has brought together a number of facts, along with opinions of great weight, collected by himself, by personal correspondence, from medical and scientific authorities, which support an appeal to Government.

Mr. Carr mixes with this subject the relative one of skin-poisoning by aniline-dyed fabrics. That arsenic is used in the production of some of these, and also in the composition of some of the mordants used in calico-printing, is well known. But we very much doubt whether there is sufficient evidence of injury to justify legal interference with such an important industry as the preparation of aniline colours. The few instances which have figured in the newspapers may have been well founded, but they would only prove that some carelessly-prepared magenta dye had been put on the market. The subject, however, might well be included in any inquiry which, we hope, for the public benefit, will be undertaken either officially or "by private enterprise." Among the authorities who warmly support Mr. Carr's views may be named Dr. Alfred S. Taylor, Dr. Stenhouse, Dr. Tidy, Mr. Simon, Professor Rosece, Drs. Farre, Brunton, Langdon Down, Habershon, Sieveking, and many others.

### AMENDING THE PHARMACY ACT.

It must by this time be evident to everyone that the majority of the present Pharmaceutical Council have no serious intention of promoting a bill to amend our existing Pharmacy Act. One step per month, and that not always in a forward direction, is not the way in which any object worth attaining is to be secured. What the mysterious amendments are which the united wisdom of the Council has succeeded in suggesting in committee we have no means of knowing, but we do not expect much more from them, for the reason that they took three months to hatch. The main defects of the Pharmacy Act as it exists are that it permits the sale of anything under cover of the Patent Medicine Act, and that it apparently allows co-operative societies and limited companies to usurp the functions of a chemist and druggist. Why there need be any mystery about correcting these defects we are at a loss to understand. If Parliament meant the Act to fail in these particulars let that fact be clearly stated; but we do not believe such was the intention, and at all events we see no reason why the question should not be asked. The formulating of such a question is the business of a lawyer, and if the Council had been in earnest they would have had their Bill ready when Parliament met a month ago. The prospect of passing anything through Parliament, when at this period of the session the subject of the demand is not even agreed upon, seems to be almost out of the question. The matter has been dealt with in a manner which, we venture to think, is discreditable to

\* "Our Domestic Poisons." London: William Ridgway, 169 Piccadilly. 1*s.*



the Council. It has been made the subject of three or four friendly discussions round a big table, and there was a taking look of importance in the engagement which made it attractive. But not one-fourth of the Council had any serious intention of bringing those discussions to a practical issue. The fact is the Pharmaceutical Council is becoming more and more a pleasant club and debating society, and its skill in splitting fine hairs of politics is indisputable. If this is what the trade generally prefers, they will please to vote again for the gentlemen who have so long represented them when the opportunity presents itself in May next, and they may depend on a carefully-prepared programme of subjects for debate during the ensuing year.

### THE FRENCH PHARMACY LAWS.

THE legally-defined condition of pharmacy in France is a medium between that of England and that of Germany. There is no Governmental limitation to the number of possible pharmacies as there is in Germany, but the would-be pharmacien is required to go through a curriculum of study, and examinations, not so severe as those demanded of a German "apotheker," but certainly more elaborate than are required of an English chemist and druggist. In both countries, however, in fact in all countries in Europe except in Great Britain, the sale of medicaments generally, and not of poisons only, is theoretically reserved for the pharmacien. We have faith that such a condition will ultimately be the position in this country, for a conviction of the immense necessity of ensuring skill in the selection, preparation, and dispensing of drugs will one day reach the intelligences of our legislators, as it did years ago make its way to the brains of the ruling powers of other lands.

Our much-harassed, ever-struggling chemists and druggists may indeed look to the monopoly in medicaments which prevails elsewhere, as to a veritable land of Canaan, but it is only fair that they should remember that it is but within quite recent years that they have become an organised body at all. They can hardly expect to be in a position to maintain their claims to a condition of affairs such as exists in France, until they have advanced yet further in the course of compulsory examination, which they only commenced in 1868. But, with or without a guaranteed monopoly, cultured British pharmacists will, we believe, always hold their position by the side of their foreign *confères*, and notwithstanding the long start and the established advantages which the latter possess, it is probable that at the present moment this country could produce in the ranks of pharmacy, man for man and business for business, as good a show, both intellectually and commercially, as any continental nation.

French pharmaciens do not find their present condition all they can desire. They are vexed by many defects and infringements of their laws, some of which have grown to rather good-sized abuses. These have been represented to the Legislature, and the consequence is that for some time past an influential committee has occupied itself in preparing, at the request of the Minister of Public Instruction, a series of suggestions for the better regulation of pharmaceutical affairs. These have lately been submitted, and a glance through them will most readily show the points of weakness in the present system, while perhaps it will be agreed that the "project of law," such as has been elaborated by this committee, might be taken to represent the ideal condition beyond which an earthly pharmacist would hardly care to rise.

It is first claimed that in compensation for the difficulties, and the time and money necessarily sacrificed for the

diploma, a pharmacien ought not to be trammelled in the exercise of his profession any more than is absolutely essential for the public interest. This is laid down in the preamble, and the "project of law" then proceeds as follows:—

1. No one, whatever may be his nationality, shall exercise the profession of pharmacy, possess a pharmacy, prepare, sell, or dispense any medicament, either for human or veterinary purposes [The monopoly of veterinary medicines is at present a vexed question], unless he shall have obtained a pharmaceutical diploma in a French school, in accordance with existing regulations. A medicament shall be regarded as any substance, simple or compound, natural or prepared, designed, or commended as possessing curative or preventive virtues, and destined to be taken internally or employed externally. [At present no definition of the term "medicament" exists, and continual disputes have arisen, as, for instance, in reference to cod-liver oil. The one suggested certainly seems comprehensive enough. If taken literally it would include tea, coffee, cocoa, spices, wines, spirits, oils, and a thousand other substances which have been *preconisées comme jouissant de vertus curatives ou préventives*.]

2. The pharmacien to produce his diploma to the mayor before opening his pharmacy. [This is not new.]

3. Relates to the distinctions of rights between first and second class pharmaciens. The committee would desire to abolish the latter altogether; but if the Legislature prefers to retain them they ask that they should be excluded from all towns of 10,000 inhabitants, and more. At present a second-class pharmacien is only licensed for a particular department. It is thought that if he is shut out from all large towns he should at least be free of all the rest of France.

4. No pharmacien to possess more than one establishment open for business. [New.]

5 and 6. Every medicament to be labelled, and to bear name and address of seller, and special regulations for dangerous poisons. External applications and veterinary medicines to be clearly distinguished. [Extension of existing regulations. At present a law of the first Republic forbids the sale of any "compound medicament," except on the order of a physician. This law is entirely a dead letter, and is broken daily by every pharmacien. It is proposed to make the regulation apply only to a schedule of specially dangerous substances.]

7. Sale of secret remedies forbidden. [This law is at present in force, but there has been an endless dispute as to the definition of a secret remedy. According to legal decisions the term has come to mean any remedy not included in the Codex, not formally approved by the Academy of Medicine, or not prescribed for a special cure by a physician. A scheme is proposed which seems attractive; whether practicable or not we cannot say. Every compound specialty is to be regarded as a secret medicine, unless its author inscribes the formula in a public collection of formulae, paying to Government a certain tax for the privilege. That collection is to be sold publicly as the Codex now is, and anyone is to be at liberty to prepare any of the compounds there formularised. Those who introduce these remedies purely for the benefit of their fellow-creatures, and that seems to be the object of most specialty proprietors, can hardly have any objection to this proposal.]

8. Pharmaciens shall not practise medicine, nor shall physicians or veterinary surgeons sell medicaments. [This is, generally speaking, the present state of the law, but it is evaded on both sides to a large extent].

9. Simultaneous practice of medicine or veterinary surgery with pharmacy prohibited, even though one person should

hold both diplomas. [Law at present not definite on this point.]

10. Association or connivance (*compérage*) between physicians or veterinary surgeons and pharmaciens formally prohibited.

11. Is intended to prevent an abuse of the law which now largely prevails, by which needy pharmaciens lend their names to wealthier but undiplomaed proprietors. Sleeping partners would be, however, permitted.

12. Widows or heirs allowed to carry on the business of a deceased pharmacien for one year after his death. [A new concession.]

13. Also directed against the *prête-nom* system.

14. Would overthrow herbalists and druggists as far as retail trade is concerned.

15. Would prohibit the practice of pharmacy by religious communities, and is directed both against sale and gratuitous distribution of medicines by these establishments. They may have a pharmacy for their own use, but even that must be directed by a pharmacien.

16. To prevent any excuse for the sale of medicaments by physicians a chest of medicines is to be provided in such communes as may be 8 kilometres distant from a pharmacy.

17. Would abolish herbalists' certificates altogether, but would provide a list of herbs in which the commerce should be entirely free. [The herbalist was intended to be a substitute for the pharmacien in districts where the latter could not live. As a matter of fact, out of 900 herbalists now certificated in France, 800 are localised in Paris, and their trade is declared to consist to a large extent of infringements on that of the pharmaciens.]

18. A permanent committee to be appointed to publish a Codex every 10 years, and an annual supplement if necessary. A Veterinary Codex also to be published. [The first French Codex was published in 1816, and only two other editions have since appeared. A Veterinary Codex would be an innovation.]

19. A committee of first-class pharmaciens to be appointed for the annual inspection of pharmacies.

We shall watch with a good deal of interest the progress of this proposed scheme of legislation. To have gained the ear of the Minister of Public Instruction is no small advantage, and our Gallic *confrères* are evidently not disposed to minimise the benefit by false delicacy or over-modesty.

## ANALYSM AND ANNATTO.

MR. CARTER BELL, whose previous analytical exploits we have had too frequent occasion to report, has lately distinguished himself by an investigation into the properties of annatto. Mr. Bell saw large quantities of this article going about (the style of expression is his, not ours), and he thought it his duty to interfere with these peripatetic propensities. So having read up the subject, though from what authorities we are not informed, our analyst considered the time had come for him to make use of his new knowledge. He knew nothing about annatto except what he had gathered from books; he knew that it was soluble, which in its pure state it happens not to be; he did not agree with Professor Redwood that annatto required the addition of another constituent to prevent it from becoming putrescent: his "opinion as a chemist" was that annatto required no addition of any description to prevent decomposition. We think Mr. Carter Bell's evidence proves at least this one thing: namely, that he himself knew very little, practically nothing at all, about annatto. The roll annatto sold in this country is as much a manufactured article as raspberry jam. Annatto, as imported, would not yield its colour without the addition of an alkali;

and it would soon be found "going about" in a very literal sense indeed, unless it went through certain processes of preparation after importation, and before being sent into the usual trade channels. In 1855 Dr. Hassall made some statements respecting the adulteration of annatto before a House of Commons committee, which were regarded by many well-informed persons as extravagant, and were challenged and severely criticised by Dr. (then Mr.) Redwood at an evening meeting of the Pharmaceutical Society. Dr. Hassall came to a subsequent meeting, and afterwards read a paper on the "adulterations" which he had found in 34 samples of annatto. Even he, however, admitted that it was necessary to add something to annatto as imported, and Mr. Redwood made that admission quite superfluous by placing on the table over 100 samples which had been taken within the six weeks preceding from original packages of annatto. There was not one of those samples in which decomposition had not commenced, and it was evident that in the course of a few weeks most of them would be crowded with and partially destroyed by maggots. It has been found that the addition of some such ingredient as carbonate of lime in varying proportion is necessary, or annatto as imported would be useless. Facts of this kind are independent either of Professor Redwood's or of Mr. Carter Bell's "opinion as a chemist." The question suggests itself: How long are these analysts' whims and crotchets to form the basis, if not of fines, certainly of great trouble, expense, and loss of time, to honest tradesmen, to say nothing of the expenditure of public time and money?

During the past two years Mr. Carter Bell has either suggested, or at least assisted in, prosecutions respecting milk of sulphur, violet powder, balsam of copaiba, and annatto, in all of which cases his anxiety for the public welfare has been proved by results to have been groundless. In all the instances named we believe the defendants have had to pay their own costs, and the public have had to pay the expenses of the other side. If unpaid magistrates are willing to waste their time in settling all the fancy questions which some analysts insist on bringing before them, that is no affair of ours; but it does concern us to see an Act of Parliament, most beneficial in its intentions and tendency, so played with as to bring both it and the justice it was meant to promote into disrepute.



AND

## Literary Notes.

*On Diphtheria.* By Robert Hunter Semple, M.D. London: Ballière, Tindal & Cox.

DR. SEMPLE has here opportunely republished several previous papers, with comments suggested by further experience. The result is a valuable monograph on a disease which still remains mysterious in its origin and nature. Diphtheria was only recognised by English physicians about 20 years ago. It was in 1859 that it first figured in the Registrar-General's returns, and medical authorities have not as yet defined it with such close accuracy that there remains no likelihood of confusion between this and other affections of the throat. The general public have very hazy notions indeed respecting diphtheria. By a great many a complaint affecting the throat is promptly honoured with the title, and it is probable that many medical practitioners have themselves failed to distinguish true diphtheria from certain forms of croup. The merit of Dr. Semple's treatise consists in contributing very considerably to an accurate distinction



between these similar complaints. In his view true diphtheria is always accompanied with the formation of a false membrane, which is not the case with croup. The former may, or may not, be preceded by inflammation, and it is always very dangerous, especially when it attacks the larynx or trachea. In these cases only the removal of the false membrane, by expectoration or surgical operation, can save the patient from suffocation. Croup is a disease much more apparently alarming, but of comparatively little danger.

Dr. Semple favours the fungous, or bacterial, theory of the origin of diphtheria. The gradual growth of this false membrane, by the extension of a sort of dry eruption or pellicular exudation, seems to suggest the idea, but the evidence is at present very weak. It is a singular, but well-observed, fact that diphtheria is more common among the better classes of society than among those whose sanitary advantages are fewest.

WE have also a small work on diphtheria, by Wm. Morgan, M.D. (London: The Homœopathic Publishing Company). The value of this work as a scientific treatise may be estimated by the fact that the greater part of the introductory chapter is a reproduction of Lord Beaconsfield's speech on the death of the Princess Alice, and that later on (page 60) a passage from that speech is actually quoted as the one and sufficient authority for the assertion that diphtheria is "undoubtedly contagious." On pages 43-5 we have an astounding "tabular statement," given with all seriousness, to show the comparative mortality occurring under allopathic and homœopathic treatment respectively. By its statistical look the table might be one from the Registrar General's returns. We find from it that in diphtheria 70 per cent. die under allopathic treatment, while 15 per cent. succumb under homœopathic treatment. In yellow fever the proportions are 65 and 3 per cent. respectively; in small-pox 24 and 8 per cent. respectively, and so on. Surely there is no need to examine further the statements and opinions of an author who will deliberately publish a tabular statement of that kind, unsupported by any authority, and left without a word of explanation.

*Children's Ailments: A Manual of Nursery Medicine.* By Wm. Booth, L.R.C.P., Ed., &c. (Cooper & Budd, Peckham.)

WE have read this little work with much pleasure. It explains the symptoms and the general treatment of the complaints to which infants and young children are especially liable, in a style neither diffuse nor pretentious. The information conveyed will certainly not make a doctor of the mother who reads the book, but it is such as she ought to know. Colds, coughs, whooping cough, measles, fevers, small-pox and chicken-pox, scarlatina, diarrhoea, croup, and the various skin diseases are among the complaints concisely treated. The little work is not an ambitious one, but it is one that will fulfil a useful mission in many a household.

The authors (for Dr. Booth has been assisted in the preparation of the work by Mr. W. D. Hay) make no direct reference to the dispute between medical men and chemists, but it is probable that this has partly suggested the publication. However this may be, it is pleasant to meet with medical writers who can refer to the prescribing chemist without a burst of holy anger. On the title-page we are told that the book may be had "of all booksellers, and of chemists and druggists." About 50 formulæ are appended to the book, which are referred to by number throughout the preceding pages; and it is stated "They can all be prepared by any chemist and druggist, to whom it will only be requisite to show the formula that is wanted, and to state the age of the patient for whom it is required." And again, in the introduction we are told that the hints are addressed to mothers, nurses, district visitors, and "lastly, the chemist and druggist, who in these days of pharmaceutical progress reasonably aspires to the position formerly held by the apothecary, will, I trust, find here some matter to help him, since he is not now unfrequently called upon to prescribe as well as to compound for children." Dr. Booth is probably offending against the canons of medical etiquette as laid down with pompous verbosity in the professional journals; but he may

console himself easily enough with the consideration that a fair proportion of his own *confrères* and the whole of the public take a view similar to his own.

MR. VESEY FITZGERALD, barrister-at-law, has published (through Messrs. Longmans) as a supplement to his treatise on the Public Health Act of 1878 a collection of notes on subsequent legislation affecting the public health, such as the Amendment Act, 1878, Factories Act, 1878, Highway Act, 1878, Rivers Pollution Act, 1876, Canal Boats Act, 1877, with illustrative comments on legal decisions which have occurred between 1875 and 1878.

BENTLEY & TRIMEN'S *Medicinal Plants* has reached its 37th part, and is therefore approaching completion. More than 250 coloured plates have already appeared, and the high standard of excellence upon which we have previously remarked is uniformly maintained. Rose, English rhubarb, dandelion, garlic, coffee, saffron, sarsaparilla, the gutta-percha plant, the grape vine, sago, sugar, wheat, hops, and mulberries are among the plants recently illustrated.

MESSRS. J. M. STODDART & Co., Philadelphia, have issued the first volume of an extensive medical work, by Dr. Constantine Hering, whose name is as well known among homœopaths in America as that of Hahneman. The work is entitled "Guiding Symptoms of Our Materia Medica." It is to comprise 10 volumes of about 500 pages each, and when complete will be the most exhaustive and thorough work of the kind ever written. Messrs. Stoddart & Co., of Philadelphia, publish it for the American Homœopathic Publication Society.

THE Italian Government has offered a prize of 3,000 lire for the best monographic essay on the structure, vital functions, and diseases of the *agrumi*, the acid fruits of the genus citrus and kindred genera, providing that the work should succeed in furnishing an important addition to the present knowledge of the subjects. The essays are to be sent to the Ministry of Agriculture, Industry, and Commerce, not later than the end of May, 1881, and must be distinguished by a motto. If written in a foreign language, they must be accompanied by an Italian translation.

WE have received the fourteenth annual volume of "The Export Merchant Shippers' Directory" from the publishers, Messrs. Dean & Son. In this edition the shippers of Leeds, Bradford, Sheffield, Glasgow, Edinburgh, Leeds, and Hull have been added to those of London, Liverpool, Manchester, Birmingham, &c. The directory not only shows the names and addresses of the firms, but also indicates the classes of goods they ship and the ports to which, according to Custom House returns, their shipments are forwarded. These special features are separately classified, and other information of use to manufacturers and others is also given.

ONE might have supposed that the homœopaths would have been the last to complain of Dr. Kidd's recent work on "The Laws of Therapeutics" (reviewed in December last), the general conclusions of which were something more than merely favourable to their theories. But there is a section of the homœopathic body which is content with nothing but the most abject submission to all Hahnemann's "inspirations," as they are pleased to designate even his most fantastic whims. Dr. E. W. Berridge is one of these Hahnemannian Ultramontanes, and in a 48-page pamphlet, entitled "Homœopathy Vindicated," he has reviewed Dr. Kidd's work, with a degree of bitterness and with traces of personal animosity which seriously blunt the edge of his criticisms. The "vindication" is a smart piece of writing, and those who care to see the style of eighteenth-century pamphlets introduced into medical discussion will relish it; but Dr. Berridge must not expect outside observers to sympathise with his apparent assumption that anyone who adopts a fragment of Hahnemann's teaching is morally bound to swallow the whole pile.

Two more of Messrs. Hardwicke Bogue's series of shilling Health Primers have appeared, one on "Personal Appearance in Health and Disease," and the other on "Baths and Bathing." The first is a very good popularisation of the facts of anatomy which ought to be part of everyone's education. The growth of the body, the development of fat, the figure and the colour of the human body, and suggestions as to these and similar subjects make up this primer, which is written by Dr. Sidney Coupland. Another on "Baths and Bathing," of which the author's name does not appear, is much less useful. It strings together a few remarks and quotations respecting different kinds of baths, with a lot of twaddle about the German watering-places. We do not find any allusion to hydropathy from beginning to end, which in such a primer certainly ought to have been explained, and either condemned or commended.



#### HINT TO PATENT MEDICINE PROPRIETORS.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I notice that the rage for selling patents at a trifle over cost is increasing in most cities and large towns, and find that stores, grocers, and occasionally big chemists, have adopted this unjust system, depriving the poor hard-working chemist of his legitimate profit; and almost wonder that the proprietors of patents do not generally advance their terms, so that their goods could not be sold under advertised prices, pocketing the profit themselves, instead of allowing the public to have all the benefit. True, the chemist would not realise much profit by their sale, but it would in many cases be much more satisfactory for him to sell the goods at the price advertised, with the knowledge that he would not be bantered into taking less. The proprietors would also be better enabled to advertise their specialities more extensively, and thus probably promote the sale of the same. For instance, the 1s. 1½d. size might be 12s. per dozen, subject to 10 per cent. or 15 per cent. discount to wholesale buyers, and other sizes in proportion. It would also be fair for the proprietors to give some notice through your columns before carrying such plan into effect, so that wholesale agents and the trade might lay in some little stock. Perhaps some of your correspondents will give their opinion on this plan or suggest a better.

I remain, sir,

Yours truly,

"UNGUENTUM."

#### REVISION OF THE BRITISH PHARMACOPEIA.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

DEAR SIR,—As your journal has a large circulation in Australia, and probably in most of the British colonies, you will, I feel assured, be doing a service to the pharmacists of those colonies by calling attention to a suggestion from Canada, by Mr. Shuttleworth, the editor of the *Canadian Pharmaceutical Journal*. It is as follows:—"Although the preparations deemed necessary and declared official in Great Britain have, as a rule, proved acceptable in other parts of the British Empire, yet they have not in all cases been found sufficient to meet the wants of the medical profession.

"We could cite several instances of remedies which are almost universally used in legitimate practice in this country, and for which there is no authorised standard of strength or definite directions regarding their mode of preparation.

"Consequently they are of somewhat uncertain composition, and are a source of confusion both to the prescriber and

dispenser, while it is possible that the patient does not altogether escape.

"We speak advisedly in this matter, and think the subject demands the serious attention of the Medical Council.

"The additions need not be numerous, as far as Canada is concerned, and we dare say that the wants of other countries would not swell the bulk of this volume very materially. However this may be, we claim for the colonies some consideration, and hope that the coming Pharmacopeia may be one truly British, rather than one applying exclusively to Great Britain."

If such formulæ can be introduced (and I certainly fail to see why they cannot), they would be a boon, not only to the colonists themselves, but to the export houses in this country. The advantages are many and disadvantages but few; indeed, the quotation so thoroughly commends itself to our notice that it scarcely requires comment. Still, without due attention being directed to the subject through the medium of British journals, it is possible that it may finally be overlooked.

Faithfully yours,

CHARLES SYMES.

Liverpool, March 3.

#### THE FUTURE OF THE DRUG TRADE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Allow me a small place in your next issue, in reply to the latter part of "S. K.'s" letter (published by you in February last), who thinks if the patent medicine licence were raised to 20s. it would be more than most chemists could afford to pay. I am of opinion chemists throughout the country would cheerfully pay 40s., and, if necessary to reimburse the revenue for the loss of grocers, &c., chemists would not object to the licence being 5*l.* per annum, so long as they secured the sole right to deal in them; and if the sale of all medicinal articles can be restricted to registered chemists few would object to sending a donation of 50*l.* to the Chemists and Druggists' Trade Association of Great Britain, provided they obtained this most desirable privilege. Thus an end would be put to the co-operative clergy, who, to my knowledge, are doing a good stroke of business by retailing drugs and patent medicines to their parishioners, obtained in quantities at the stores!

Chemists in London and other large cities can have no idea of the extent of trade in drugs by shopkeepers in every village. The day is gone by for chemists to sell pickles, sauces, jams, marmalade, vinegar, spices, tobacco, cigars, snuffs, &c., &c. Most of us are better employed than competing with grocers and oilshops. Therefore, in justice to our business, Government ought to make it legal for no medicines to be sold except by registered chemists. Had the Pharmaceutical Society studied the interest of country chemists by obtaining the above, hundreds more would have been members. From its foundation I paid a guinea a year, and, like many others, gave it up, as no benefit was likely to result. I have been in business 30 years in a small country town, and notwithstanding the "cutting system," and "co-operative stores," I do not despair of the future of the drug trade. But our rights ought to be obtained.

Yours truly,

FAIR PLAY.

#### THE NEW COLLEGE OF PRESCRIBING CHEMISTS

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

DEAR SIR,—If chemists and druggists who are in the habit of prescribing wish to continue that benevolent and merciful duty imposed by the public, and especially the suffering poor, they may unite and entirely set aside the Apothecaries' Company.

"We can have a room for conducting our examinations, and suitably fitted with models, &c.; appoint our board of examiners, and fix our standard test; admit to our examina-



tions suitable candidates, and those we think fit to practise grant them a licence, and, by having some of the representatives of a legally-constituted University present, who would grant them a doctorate, then we should either be allowed to practise or be registered on the Medical Register. The Medical Council could not stop us, nor any of the other licensing bodies. We should not misrepresent ourselves, and we should have the people with us. Can it be done? Yes, if we are willing, and there are several Universities who would grant us a doctorate. We shall be justified in doing so on account of the great expense the Apothecaries' Company have put us to in Shepperley's case, and there is no reason why we should not strive to obtain knowledge and use it. There will be two objects gained: 1st, a boon to the poor; 2nd, a means of making a living by our brains, which Co-ops. could not take from us.

MON DROIT.

[The suggestion made by our correspondent, who also wrote on this subject last month, is not quite clear. Chemists may doubtless obtain a doctorate by going through the prescribed curriculum, and then, it is true, they may laugh at the Apothecaries' Company. But surely it is not supposed that the Medical Council would, or could, admit chemists and druggists to the medical register after anything like a modified examination.—ED. C. & D.]

## TORYISM IN AN UNEXPECTED QUARTER.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—The "unexpected" is what has happened of late years in the political world; is it to be so now in the world of pharmacy?

My esteemed colleague Mr. Hampson is reported in Saturday's *Journal* to have said in last week's meeting of Council, and I accept the report as a correct one:—"He knew from various matters which had dropped occasionally from him that Mr. Frazer objected to all legislation with respect to pharmacy; that being so, he could not understand how it was that Mr. Frazer accepted a seat at the Council." In connection with this allow me to quote from a speech delivered in Manchester by Mr. Barclay, of Birmingham, in December, 1876, and reported in the *Pharmaceutical Journal* of January 13, 1877:—"Mr. Frazer said that 'these troubles of druggists only began when we got tied neck and heel by the Act of 1868.' That," continued Mr. Barclay, "was strange language for a gentleman to use who was a member of the Council charged by Government to administer the Act. His place, one would think, should be outside endeavouring to obtain its repeal."

The fallacious character of this argument, as it seemed to me, was so transparent that I did not think it necessary to reply to it when it was first uttered by Mr. Barclay, but now that it has been repeated by one whose opinions, on whatever questions they are expressed, have ever commanded my utmost respect, I feel I can no longer remain silent on the subject.

I do not, let me say, object to "all legislation with respect to pharmacy," although since I have seen the evils introduced into our business by the carrying out of the Act of 1868 into actual practice, I have not hesitated to say, as occasion offered, that could we druggists retrace our steps in the matter, it would be in our true interests to do so. So far as I have mastered it, or observed its operation, I approve of all the *permissive* legislation enacted prior to 1868, and believe that it is to the operation of these laws that is mainly due the great advance made in pharmacy as a trade, or, as some will have it, as a profession, since their introduction by Jacob Bell and the other founders of the Pharmaceutical Society. I am of the opinion that had pharmacists been content to advance along the grooves that led up to the Act of 1868, they would have taken quite as high a position socially, and been quite as much respected by "the public," as they are under the present *compulsory* Act. The affixes, "R.A.," "F.G.S.," "F.C.S.," &c., as voluntarily voted by their respective societies, bear, as I believe, a higher value in public estimation than had they been won

by the stiffest examination through which their holders could have been put.

But regarding the question raised by Mr. Hampson as to my being inside, and not outside, the Council. To whose action was my presence at the table of the Council originally due? My belief has always been that it was largely due to that of my friend Mr. Hampson himself. He and Messrs. Woolley, Betty, and myself, as well as others not now in the Council, were carried into the Council some eight years ago, not because we approved, but because we were supposed to disapprove of a certain act then proposed by the Council of that time—such, at least, is my recollection of what occurred in the pharmaceutical world in 1871. Further, had slaveholders had the power, they would have kept Wilberforce and such men out of Parliament; and slaves might still have existed in our colonies. If the Tories had had their wish, the great heroes who carried the Reform Bill of 1832 would also have been "outside" Parliament—as would Cobden, Bright, Sir Robert Peel, and Gladstone, had the opponents of free trade, of the disestablishment of the Irish Church, of abolition of purchase in the army, only been strong enough to keep those and crowds of other reformers out in the cold.

No, no, my friends, it is only *inside* of Parliament that real work in the interest of the nation can be effected in a *constitutional* manner. The country demanded that all these measures should be carried, and so it sent our Wilberforces, our Cobdens, our Brights, our Peels, and our Gladstones *inside* the House of Commons, and thereby these and scores of like measures were carried, and they are now bearing fruit, each of their kind, by which the nation continues to be largely benefited. So it is in our own lesser field. If there is real work to be done in the interests of pharmacy, it must be done inside, not outside the Council. When our constituents want a change of representatives, they have but to act on the advice I gave to the Trade Association, in November, 1876—when I wrote: "A more popularly elected body never sat. You can change the face of the Council every year by turning out 14 of the old, and by voting in 14 new men, if you will but so will it—the law is at your back here, though it won't help you in all the directions some would seek its aid in."

But it may be asked by others, as well as by Messrs. Barclay and Hampson, on what principle do I maintain my seat at the Council table? I went there, in the first instance, mainly to *restrain* the Council of the day from carrying into law further *restrictive* measures in connection with Pharmacy. It was on the occasion of my first taking my seat in the Council that the *first* vote—July 1871 (?)—was carried against further action in regard to the famous Poisons' Regulation Bill.\* From that day till the present hour, my votes and speeches have, I believe, been invariably used against all further restrictive measures, and in favour of removing or of lessening the oppression of existing ones; in short, I have sought to act in the pharmaceutical arena exactly as I have ever sought to do in political, ecclesiastical, and trade matters. I want all these interests to be free from "State patronage," and so also from its concomitant, "State control," believing, as I do, that it would be conducive to all their interests to be self- rather than State-governed, but always within the well-recognised lines of our very noble constitution. At the same time, I believe it will be acknowledged by my colleagues that I have never shrunk from taking my part in any action instituted by the Council to enforce the *existing* laws of our Society. I did vote against taking action in the law courts against co-operative stores, but I did so because I did not consider that the Council, as custodian of the Society's funds, was warranted to do so in opposition to the opinion of three leading counsel; but I also told Mr. Jones, its chairman, and other representatives of the Trade Association, that, if they obtained an opposite opinion from other counsel than that obtained by the Pharmaceutical Society from theirs, I, for one at least, would support a motion in our Council for raising an action against the stores.†

Perhaps, after all, the best vindication I can give for venturing to retain my seat at the Council table, so long as I am

\* I write entirely from memory, but feel sure the facts are correctly stated.

† Such an action is, I believe, going on at the present moment.

returned to it by the members of the Society, will be here to refer to my action there last week. I advocated the admission of women into the Society, because I believe that if they are able to pass the examinations now necessary to qualify for keeping "open shop," they possess all the other qualities necessary for their doing so. I further think that in this land of liberty it is tyranny on men's part to seek to hinder women entering on an honourable employment by which to earn a respectable livelihood.

I opposed the leading clauses in the proposed Pharmacy Amendments Act, because I object on principle to our forging chains to wrap round the limbs of others at present, as I believe they are, exempt from them; and because I am of the opinion that we shall most certainly fail in our attempts to do so, and that we shall only aggravate the evils we seek to cure, and all this after incurring very considerable law and Parliamentary expenses. In my speech, November, 1876, I say—"If either society" (Ph. Soc. or Trade Assoc.), "or both of them together, seek to advance our trade interests at the expense of those of the general public, ours will go to the wall, and those of the public will be preserved, and that by any government that may be approached on the subject."

Next, I voted with much cordiality for Mr. Gostling's motion,\* because it is not only my duty as a councillor, but because it is my whole desire, to give full effect to the constitution under which we act. This is just what I have done as a County Justice of Peace for about a quarter of a century. In sitting in judgment upon cases of poaching, though I do not at all approve of our existing game laws, my aim was to enforce those laws as they stand against those who transgressed them.

Finally I spoke, vainly, but strongly, against a further restriction being put upon the character of the Preliminary Examinations. I did so first on the merits, because these examinations are, as I think, already sufficiently stringent; but I further opposed the addition as having been made by the Board of Examiners, and acted upon by the College of Preceptors, before obtaining the sanction of the Council. They had infringed our bye-laws on the subject, and then came to the Council for a vote of indemnity. That I don't like, and never have liked—and so I spoke against it.

In conclusion, a word of explanation as to what, on the surface, looks like an unexpected opposition by three present, and by one absent member of Council, to Mr. Hampson's motion. The whole discussion on the Pharmacy Amendments Act took place in Committee, and so was not reported. Had it been duly reported the whole country, as well as the editor of THE CHEMIST AND DRUGGIST (who, among many others, was misled by the report), would have known the Council was not unanimous, as the report of the proceedings bear. That, in the present case, merely means that, being in a hopeless minority, the members in question did not again divide the Council by a useless vote. It is, I think, to be regretted that they did not. I, for one, will in future be much less ready than I have been in the past, to enter into Committee.

I am, &c.,

DANIEL FRAZER.

Glasgow, March 11, 1879.

## Medical Cleanings.

**SOLUTION OF ACETATE OF LEAD AS AN EYE LOTION.**—A writer in the *Philadelphia Medical and Surgical Reporter* calls attention to the danger of using solution of acetate of lead in cases of inflammation of the eyes, a danger recognised by all surgeons, but little known by those who are their own physicians. Whenever there is any ulceration or abrasion of the cornea, a lead solution, however weak, is likely to leave a white deposit of albuminate of lead, which can only be removed by "shovelling" it off with a small silver spnd.

\* "That the Pharmacy Act of 1868 be so far amended as to render it penal for any person to use any name, title, or description, implying that he is a registered chemist and druggist, unless he has been duly registered under that Act."

**INSURANCE OF EYESIGHT.**—A correspondent of the *Times* proposes the establishment of companies for the insurance of eyesight. Loss of sight generally involves loss of employment; it is not so common as to necessitate a heavy premium, and the intentional destruction of sight can be easily detected and exposed. The suggestion seems feasible, and would be valuable to many.

\* \* \*

**CURE FOR DRUNKENNESS.**—Dr. D'Unger, Chicago, states that a strong liquor cinchona rubra is a valuable medicine in the treatment of dipsomania. He has cured nearly 3,000 cases by its use. It produces a violent dislike to liquor in any form. He percolates a pint of proof spirit through a pound of the bark and evaporates to half-a-pint, then administers a teaspoonful every three hours, gradually reducing the dose down to five drops.

\* \* \*

**AMIALE CRITICISM.**—This is how the *Ohio Medical Recorder* refers to the author of a book under review:—We demand of William B. Atkinson, who has thus prostituted his secretaryship for pelf and betrayed his profession—William B. Atkinson, who has disgraced and dishonoured us—William B. Atkinson, who has befouled the hitherto immaculate escutcheon of American physicians, and has made us the laughing-stock of the profession throughout the world—we demand of this man that he resign the position which he has disgraced, and bury himself deep in the ignominious grave of professional contempt."

\* \* \*

**TREATMENT OF SMALL-POX IN THE OLDEN TIME.**—A curious old custom, says the *British Medical Journal*, still lingers in some of the more secluded parts of the country of placing a patient suffering from small-pox in a bed with red hangings. It would be interesting to know the origin of this custom, and how long it has been in vogue. The tradition that red is good for small-pox is at least five centuries and a half old, for we read that John, one of the sons of Edward II., was treated for the disease by being put into a bed surrounded by red hangings, covered with red blankets and a red counterpane, his throat being gargled with red mulberry wine, and the red juice of pomegranates being given him to suck. This was the boasted prescription of John of Gaddesden, who took no small credit to himself for bringing his royal patient safely through the disease.

\* \* \*

**RANCID OIL A PREVENTIVE OF THE PLAGUE.**—A gentleman, writing from Egypt, states that oil is a preservative from plague-infection. This fact was noticed at Beyrout in 1838, when the plague broke out in the Egyptian army, under Ibrahim Pasha. The mixed inhabitants of one of the villages at the base of the Lebanon, not far from Beyrout, where there are many olive-yards, and where much oil is made, used to frequent the town as usual, bringing their oil regularly to the market. The persons and clothes of these men were generally well saturated with oil, and the writer has every reason to believe it to be a fact that not one of them caught the contagion. He visited the village himself after the disappearance of the plague, and the inhabitants assured him that all escaped. The suggested remedy is possibly worthy of a trial in those places where the scourge now exists.

\* \* \*

**COLD FEET.**—The *British Medical Journal* points out how many persons, ladies especially, suffer from cold feet, and often, in consequence, from sleepless nights. The writer recommends such to observe the snowballers. The first contact of the snow makes the hands terribly cold; for the small arteries are driven thereby into firm contraction, and the nerve-endings of the finger-tips feel the low temperature very keenly. But, as the snowballer perseveres, his hands commence to glow; the blood-vessels have become secondarily dilated, and the rush of warm arterial blood is felt agreeably by the peripheral nerve-endings. This is the plan to adopt with cold feet. They should be dipped in cold water for a brief period; often just to immerse them, and no more, is sufficient; and then they should be rubbed with a pair of hair flesh-gloves, or a rough Turkish towel, till they glow, immediately before getting into bed.



## Clippings and Pickings.

A LITTLE BOY refusing to take a pill, his mother placed it in a piece of preserved pear and gave it to him. In a few minutes she said, "Tommy, have you eaten the pear?" "Yes mother, all but the seed."

\* \*

A SMALL BOY entering the shop of a Scotch druggist said, "My mither sent me for a bawbie's worth o' that stuff for the wind, she dis-na' mind the right name, but they ca't deevil's dirt." To which the Northern Knight of the pestle replied, "Rin hame and tell yer mither that I canna' disturb the deevil for less than a penny."

\* \*

A DOCTOR having given a box containing a couple of pills to a country lad with instructions "To be taken at bedtime," was informed next day that they had had "no effect." The doctor closely cross-examined the youth as to whether or not he had taken them, and was assured, though perhaps not relieved, by the boy's innocent suggestion that "maybe the lid hasna' come aff yet."

\* \*

TO MEND CROCKERY-WARE.—One of the strongest cements, and easiest applied for this purpose, is lime and the white of an egg. To use it, take a sufficient quantity of the egg to mend one article at a time, shave off a quantity of lime, and mix thoroughly. Apply quickly to the edges and place firmly together, when it will very soon become set and strong. Mix but a small quantity at once, as it hardens very soon so that it cannot be used. Calcined plaster of Paris would answer the same purpose as lime.

\* \*

## ARISTOCRATIC REMEDY FOR ITCH.—

Balsam of Peru .. .. .	1 ounce
Benzoic acid .. .. .	110 grains
Oil of cloves .. .. .	40 drops
Alcohol .. .. .	2½ drachms
Simple cerate .. .. .	7 ounces

Dissolve the essential oil and the benzoic acid in the alcohol, and mix them with the cerate. Lastly, add the balsam of Peru. It is said to effect a cure in 24 hours.—*Druggists' Circular.*

\* \*

THE HUMPHRY DAVY CENTENARY.—The organ of the scientific world, *Nature*, sneers at the inhabitants of Penzance for "attempting to celebrate in a mysterious, hole-and-corner way, the centenary of the birth of their great townsman, Sir Humphry Davy, two months after the actual date. What their notion of the "adjacent" world is we do not know, but we doubt if they have any adequate appreciation of the greatness of Davy, whose only merit in their eyes seems to be that he was born in Penzance. Why, if they wanted worthily to honour one of England's greatest scientific worthies, did they not take the Royal and Chemical Societies into their confidence?" The people of Penzance were two months late with their centenary; (even sun spots and commercial crises are not always true to time); but the Royal, the Chemical, and *Nature* would have forgotten Davy's centenary altogether. Who seems to best appreciate this scientific worthy?

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PHARMACEUTICAL ENGLISH.—Some of the American journals are having some fun in shuttlecocking the chemist and druggist about from one to the other. "He's a vial fellow," says one editor; "Yes, a pestle-nt chap," adds a second; "These are mortar-fying facts," remarks a third. But the *Boston Commercial Bulletin* comes to the rescue, saying that the others ought to be taken and well shaken, for the apothecary is one of the pill-ers of society. Then the *Pharmacist* interferes and claims that his *protégé* is a Quer-cus. For ourselves, we have no desire to a gr-d-i-i nndnly the pharmacist, but we must protest against these unjus and zatic attempts to denz him and imlb him in the pil. rhei of pnblc contempt. The assertions quoted are rem-aqne dist, tinct, calumb-nies. They ol, cary oph-alse emp. res. sion. This fol. scnnæ-briety of verbosity is incompatible with that spirit of ammon-astic cera-ssness which should snccum-vest pharmacy. Dear syrs, inf-n-ture look at the hyocsy.d of our profession and cease the colac-ally scillæ absurdities.

## Foreign Items.

A RICH growth of sponge has been found in the harbour of Key West, Fla. One man with a few small boats lately secured \$10,000 worth in two days.

MEDICAL ADVANTAGES IN GREECE.—In Greece there are 1,500,000 inhabitants, whose health is cared for by 797 doctors, 333 pharmacians, and 769 midwives.

COCOA.—The cocoa crop in Ecuador is almost a failure this season. The receipts at Guayaquil during the eight months were only 70,084 quintals, against 182,220 quintals last year.

A CONGRESS of Italian physicians which met at Pisa some time ago came to the very probable conclusion that suicide was much promoted by the reports of cases which appear in the public newspapers.

TOBACCO IN NEW ZEALAND.—The Government of New Zealand propose to introduce coolie labour from the Malay Peninsula for the purpose of cultivating tobacco in suitable districts in the North Island. It is intended to make the industry a Government monopoly.

THE UNITED STATES TARIFF.—Pancreatic emulsion imported into the United States was charged by the Customs with 50 per cent. *ad valorem* duty, as a "proprietary medicine." The importers claimed that it was a food, and was therefore liable to a duty of 20 per cent. only. The appraiser maintained the charge fixed by the Customs.

AUSTRALIAN PRESERVED MEAT.—At a recent meeting in Melbourne of the principal Australian meat-preserving company, it was stated by Sir Samuel Wilson that the meat then in course of packing in tins cost "a farthing less than nothing per sheep"; or, in other words, that the sums realised from the sale of the skins and tallow were sufficient to cover, or rather more than cover, the original prime cost of the animals.

ORANGES AND LEMONS.—Hurricanes and tempestuous weather occurred in the Mediterranean during the latter part of February. It destroyed nearly half the crop remaining in the orange-producing districts of the South of Spain, causing much distress. A fierce, and in some places an unparalleled, storm of wind burst over Italy on February 22, reached its height on the 24th, and continued for several subsequent days. It caused an immense amount of damage.

NEWFOUNDLAND COD-LIVER OIL.—Advices dated March 2 state that the Newfoundland cod fisheries have failed to such an extent that considerable distress has been caused. In 1876 the Newfoundland fisheries are said to have produced 1,250,000 gallons of cod-liver oil. The St. Pierre and Miquelon fisheries, which produce a large proportion of the medicinal oil used in France, would be influenced by any causes affecting those of Newfoundland.

NORWEGIAN COD-LIVER OIL.—A report in the *Pharm. Zeitung* states that the result of the 1878 cod fishery in Norway was the capture of 50,000,000 fish. This was less by 10,000,000 than in the previous year, which was the most abundant supply ever known. From these were prepared—

	Kilogrammes
Ol. jecoris album, vapore paratum .. ..	400,000
Ol. jecoris flavum medicinale .. ..	1,200,000
Ol. jecoris flavum et fuscum .. ..	800,000
Ordinary pale cod oil .. ..	1,200,000
Brown oil .. ..	3,000,000

TEPLITZ, in Bohemia, whose thermal springs have been the most famous in the Austrian Empire, and have lately acquired increased reputation in consequence of the benefit which the Emperor of Germany derived from them after Nobiling's attack on his life, has been suddenly deprived of this source of wealth. In some neighbouring mines the spring seems to have been intercepted, the mine was flooded, and 21 persons lost their lives. The flow at the previous mouths of the spring simultaneously ceased. Efforts are being made by engineers to close up the accidental fissure, and so, if possible, restore the water to its original course. The loss of the spring would, it is calculated, depreciate the value of property in Teplitz to the extent of 100,000,000 florins.

## Chemistry.

### NOTE ON CHLORIDE OF CALCIUM.

MR. O. GLUGE (Saarebrück) sends us the following:—The manufacture of soda by the ammonia process has, during the last few years, been much developed, owing to the advances made by Mr. E. Solvay, and it is likely to become more generally employed. It is possible that it may ultimately supersede Leblanc's method, as improvements are being constantly introduced into it. The reaction which occurs in this manufacture, as all your readers are aware, takes place between bicarbonate of ammonia and chloride of sodium. Bicarbonate of soda is precipitated, and hydrochlorate of ammonia remains in solution. The bicarbonate is separated by filtration, and the solution is employed to furnish fresh bicarbonate of ammonia. This is done by distilling the solution with lime, then ammonia is disengaged, and a strong ley of chloride of calcium is left in the distilling apparatus. I am anxious to direct the attention of your readers to this latter product, which is formed in considerable quantity, and which is commonly thrown away as useless, as it has hardly been employed hitherto in manufacturing processes. It would be very desirable that men of science and manufacturers should endeavour to ascertain if a more extended use could be made of a product which can be got at such a cheap rate. The manufacturers of soda by the process above mentioned can furnish chloride of calcium in quantity, in solution, in crystals, or even in the fused state, to diminish the cost of carriage.

### ALUM IN FLOUR.

MR. PENNEY, of Hull, has found (*Chemical News*, February 21, 1879) that the proportion of alumina which may occur in pure flours, that is to say, in flours to which alum has certainly not been added, is considerably more than is usually believed. A certain public analyst, not long ago, declared that a proportion equal to 2 grains of alum in the 4-lb. loaf was sufficient to allow for. The highest estimates have been from 8 to 10 grains. Mr. Penney analysed six samples of flour, of the genuineness of which he was satisfied, and found that the alumina, expressed as alum, per 4 lbs. was respectively 24.30, 21.75, 21.25, 17.00, 12.40, 6.34. The last only was from pure English wheat. This led to an inquiry into various wheats, and these were found to vary very considerably, English being uniformly low in its proportion of alum, and Egyptian being enormously high.

### METHYL CHLORIDE FROM BEET RESIDUE.

PROFESSOR ROSCOE recently delivered at the Royal Institution a lecture on a new chemical industry which has originated and developed in France to a considerable extent within the last two or three years. M. Vincent, *répétiteur* at the Ecole Centrale at Paris, and directing chemist of the great distillery works at Courrières, has succeeded in putting to good use what has hitherto been a waste product. Instead of burning the residue of beetroot molasses—after the alcohol had been distilled off from it—in the open air for the purpose of obtaining the potash salts it contains, he performs the calcination in closed retorts, in order to secure the products of distillation. Among these is found a large quantity of trimethylamine, which can be easily worked up into chloride of methyl. This gaseous body, reduced through pressure to a liquid, is an excellent material for frigorific purposes; by its own vaporisation the bulk of the liquid acquires a temperature of  $-23^{\circ}\text{C}$ .; and when the evaporation is assisted by the passage of dry air through the liquid, the temperature is brought as low as  $-55^{\circ}\text{C}$ . Professor Roscoe was able to freeze in this way a mass of mercury of several pounds weight into a hard solid, which he hammered like a piece of lead. The other and more important use of chloride of methyl is in the manufacture of those beautiful dyes known as methylated anilines. They had been known before, but the cost of their production was so high that their consumption was only very limited. The cheapening of the chloride of methyl has greatly extended, and will continue to extend, the preparation of those colours,

## Pharmacy.

### VASELINE FOR UNG. HYDRARGYRI.

DR. RICHARD GODDEFROY\* reports that by rubbing quick-silver with vaseline he found the labour of making ung. hydrarg. greatly reduced.

### CHLORAL PLASTER.

AN Italian doctor recommends for the relief of neuralgic, syphilitic, and rheumatic pains, the application of a simple pitch-plaster on which chloral hydrate in powder has been sprinkled. The preparation recommended is  $1\frac{1}{2}$  grain to 2 grains of chloral per square inch of plaister. After 24–48 hours the plaster is to be taken off, the small blister pricked, and the part dressed with simple ointment.

### VIRGINIA.

#### A New Mineral Fat.

SAMPLES of a preparation from the residues of the distillation of petroleum have been sent to the chief hospitals of Berlin with the request that it should be tried in practice. It is called "Virginia," and resembles vaseline in origin and appearance, its only external distinction being a slightly firmer consistence. Professor Sonnenschein states that it is a semi-transparent yellowish fatty substance, commencing to melt at  $47^{\circ}\text{C}$ ., becoming entirely fluid at  $50^{\circ}$ , and solidifying again at  $46^{\circ}$ . It is partly soluble in ether, and is deposited on evaporation as an amorphous fatty mass. It contains no fixed matters, and, kept for a month at a temperature sometimes rising to  $110^{\circ}$ , it did not become rancid or develop any acid reaction. It is therefore recommended as an unchangeable basis for ointments, salves, &c. —*Pharmaceutische Zeitung*, xxiv. 111.

### NDILO OIL.

IN the islands of the South Pacific, and notably in Fiji, the natives set great store on the external application of the oil of the ndilo nut as a most marvellous remedy for sprains and rheumatism. This is certain that its cures are among the common topics of conversation in Polynesia. Seeman, in his "Flora Vitiensis," says of the ndilo nut (*Calophyllum inophyllum*), "The most valuable oil produced in Fiji is that from the seeds of the ndilo tree; but the great reputation this oil enjoys throughout Polynesia and the East Indies rests upon its medicinal properties as a liniment in rheumatism, pains in the joints, and bruises. Its renown in this respect can hardly be exaggerated, and recommends it to the attention of European practitioners. We understand that Messrs. Corbyn, Stacey & Co., of High Holborn, have recently obtained from Mr. H. Stonehewer Cooper, late of Fiji, a quantity of these nuts which, they have crushed, and have now some of the oil on hand.

### NITRITE OF AMYL.

DR. W. H. GREENE states, in the *American Journal of Pharmacy*, that amyl nitrite, of fair therapeutical purity, should distil entirely between  $90^{\circ}$  and  $100^{\circ}\text{C}$ . Amyl alcohol fractionated, and only that portion retained which passes between  $128^{\circ}$  and  $132^{\circ}\text{C}$ ., should be heated with potassium nitrite, and sulphuric acid diluted with an equal volume of water gradually added. Nitrite of amyl distills regularly; it should be washed with solution of potassium carbonate, dried with the solid carbonate, and distilled, the portion passing below  $100^{\circ}$  being retained. Specimens of the nitrite from reputable firms were found to boil between  $70^{\circ}$  and  $180^{\circ}$ . One specimen had not entirely distilled at  $220^{\circ}\text{C}$ . Another contained about 10 per cent. of water, 25 per cent. of amyl nitrite, and the remainder was composed almost entirely of unaltered amyl alcohol. (*See CHEMIST AND DRUGGIST*, 1878, p. 376.)

\* *Zeit. Allg. Oest. Apoth. Verein.*



## Personalities.

DR. MARY WALKER is said to be about to try her fortune on the New York stage.

THE CHEMICAL SOCIETY has received a bequest of 1,000*l.* from the executors of the late Mr. Sydney Ellis, of Nottingham.

MR. THOMAS MACALPINE, one of the partners in the Espe-doir Chemical Company, Glasgow, was married on February 20 to Miss Barlow, of Acerington. The event was celebrated by an entertainment to the workmen and their friends.

IN THE SAN FRANCISCO papers Dr. J. A. Bauer, "the well-known druggist," is made the hero of a wild-cat story. His dogs tree'd a wild cat, and the doctor, with the assistance of a policeman, shot it!

MESSRS. WILLS & WOOTTON have issued a card showing that exactly half the students who passed the Minor examination in February, and five out of seven of the successful Majors were trained at the Westminster College.

AN ADVERTISEMENT appears in some of the Canadian papers stating that Mr. E. B. Shuttleworth, who has for some years edited the *Canadian Pharmaceutical Journal*, is leaving for England, on business connected with the trade in phosphates.

DR. J. H. BALFOUR, Professor of Botany in the Edinburgh University, has, on account of failing health, resigned his chair, which he has filled since 1845. Among the candidates for the appointment are Mr. Carruthers, Professor Dickson, of Glasgow, Mr. J. Bailey Balfour, and Professor McNab, of Dublin.

MR. G. W. STEPHENS, chemist and druggist, of Commercial Street, Hereford, asks us to explain that he was not the defendant in the case of *Eno v. Stephens*, reported in our last. The person thus referred to was a Mr. G. T. Stephens, of South Owen Street, in the same city. Both are on the register.

## Bankruptcies and Liquidations.

ISAAC BONSTALL, Mineral Water Manufacturer.

THE first statutory meeting of the creditors of Isaac Bonstall, of Ardwick, Manchester, mineral water manufacturer, was held on February 20 at the offices of Messrs. Weston, Grover & Lees, solicitors, when the statement of affairs presented showed liabilities 997*l.*, and assets 303*l.*—Liquidation by arrangement was resolved upon; Mr. Floyd (Floyd & McNaught), and Mr. E. B. Harding (Sutton & Harding), accountants, were appointed joint trustees with a committee of inspection.

*In re* J. H. HEATH.

THIS failure occurred in December, 1877, the bankrupt being described as of 33 Clifton Hill, commercial traveller, and late of 445 Strand, chemist; and the trustee applied to the Court on February 28 for an order closing the bankruptcy in pursuance of Section 47. He reported that accounts had been filed by the bankrupt, but they did not disclose any assets, and nothing could be realised for the benefit of the creditors.—Mr. Registrar Brougham made the order.

W. WALKER, James Street, Bethnal Green.

A MEETING of creditors was held at the office of Mr. Cook, 5 Mark Lane, on February 20. It was stated that the debtor had commenced business in January, 1873, as a box-maker, wholesale agent, and fuller's earth merchant. He had then 500*l.* capital of his own and 1,500*l.* which he had borrowed. He now owes about 3,000*l.*, 286*l.* of which is secured on a bill of sale which covered the whole of his plant and general property. It was estimated that the property thus mortgaged would realise a surplus of 160*l.*, and the book debts were calculated as being worth 235*l.* The debtor had re-

cently advertised largely the "Primrose" Fuller's earth, and he said had lost money on this and other branches of his business. His accounts had been kept in a most unsatisfactory state, and a good many questions were asked as to the way in which he had conducted his business. He offered 2*s.* in the pound, secured, but a resolution to refuse this offer and to liquidate by arrangement with two trade creditors as joint-trustees being proposed, he raised his offer to 2*s.* 6*d.* The meeting was about equally divided, and an adjournment for a week was necessary. At the next meeting the offer was raised to 3*s.*, which was accepted.

J. M. FAIRLIE, Glasgow.

A MEETING of the creditors *in re* James M. Fairlie's deed of trust was held at the offices of Messrs. Brown, junr., Davies & Tait, accountants, 65 West Regent Street, Glasgow, on February 17. The debtor, as we reported last month, had absconded, but had previously executed a trust deed in favour of Mr. Tait for behalf of creditors. The meeting was largely attended. Mr. Robert Hatriek, representing the largest creditors, was voted to the chair. The subjoined statement of affairs was laid before the meeting:—

	£	s.	d.	£	s.	d.	£	s.	d.
Liabilities .. ..	190	0	0				276	5	2
Contingent claims ..									

### Assets.

Stock in wholesale department, 41 St. George's Road, as per valuation and inventory .. ..	475	10	9
Stock in retail shop, Charing Cross, per valuation and inventory .. ..	885	16	6
Interest in Alloa shop .. ..	132	16	0
Debts, wholesale, considered good, 232 <i>l.</i> 8 <i>s.</i> 6 <i>d.</i> , valued at 15 <i>s.</i> per pound	174	6	4
Debts, wholesale, considered doubtful, 91 <i>l.</i> 18 <i>s.</i> 9 <i>d.</i> , valued at 5 <i>s.</i> per pound	22	19	8
Debts, retail, considered good, 36 <i>l.</i> 0 <i>s.</i> 11½ <i>d.</i> , valued at 17 <i>s.</i> 6 <i>d.</i> per pound	31	10	10
Debts, retail, considered doubtful, 30 <i>l.</i> 12 <i>s.</i> 4 <i>d.</i> , valued at 5 <i>s.</i> per pound	7	13	0
Household furniture, per valuation by Messrs. Morrison, Dick & McCulloch	53	2	6
	1,783	15	7

### Deduct Preferable Claims.

	£	s.	d.	£	s.	d.	£	s.	d.
Half-year's rent of Charing Cross shop .. ..	100	0	0						
Arrears of last half-year ..	71	12	0						
Half-year's rent of St. George's Road shop ..	37	0	0						
Half-year's rent of house ..	12	10	0						
Taxes .. ..	43	0	0						
				264	2	0			
							1,519	13	7
Deficiency .. ..							1,217	11	7

There was, besides, a contingent claim of 190*l.* referred to. The Glasgow Apothecaries' Company having supplied goods to a shop in the East End owned by a brother of the debtor, whose estate will be liable if the brother does not pay.

The creditors, after some discussion, agreed "that the trustee should realise the estate to the best advantage under the trust deed, and appointed the following committee to advise with the trustee, viz.:—Robert Hatriek (of W. & R. Hatriek & Co., druggists, Glasgow), Bailie Torrens (of Torrens & Husband), James Taylor (druggist, Glasgow), Robert McAdam (Glasgow Apothecaries' Company), and James Miller (printer and stationer, Glasgow)."

GEORGE H. SMITH, Chemist and Druggist.

THE second meeting of the creditors of George H. Smith, Regent Road, Salford, and High Street, Pendleton, chemist and druggist, was held on February 24 at the offices of Mr. Edwin Storer, solicitor, Fountain Street. Resolutions confirming the acceptance of a composition of 7*s.* 6*d.* in the pound, payable quarterly by four equal instalments, and appointing Mr. Edward Lawton, accountant, Brown Street, trustee for the receipt and distribution of the composition, were passed.—Mr. Storer was appointed to register the resolutions.

## Trade Notes.

**CHEMIST'S TEAS.**—We have pleasure in directing attention to the offer of agency to chemists for tea in packets and chests made by the Oriental Company, of 418 Oxford Street, London.

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**MESSRS. ALLEN, PEARCE & Co.,** druggists' sundrymen, Bath Street, Bristol, have purchased the whole sundry stock and business of Mr. T. Rich, late Roper & Co., Redcliff Street, Bristol.

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**NUBIAN BLACKING.**—A preparation for leather which renders it waterproof, and shines without brushing. A damp sponge or a shower of rain washes off the mud on boots and leaves the polish. Messrs. S. M. Burroughs & Co., of 8 Snow Hill, are agents.

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**THE DIRECTORS** of Price's Patent Candle Company (Limited) recommend a dividend of 12s. per share on the ordinary shares, being at the rate of 3 per cent. per annum, and the carrying forward of 1,190*l.*, which will raise the amount of undivided profit to 7,029*l.*

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**MIRACILINE.**—Messrs. W. Brien & Co., of 53 Tabernacle Walk, Finsbury Square, London, E.C., are introducing a speciality under the above name. It is intended for brightening up old bookbindings and other leather work, and is a kind of varnish. When applied by a practised hand, it produces good effects.

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**JUDSON'S ARTISTS' BLACK.**—An excellent addition to Messrs. Judson's collection of household conveniences is a shilling bottle of "artists' black," a fluid preparation which produces a good ebony enamel on wood, leather, ivory, metal, &c. Each bottle is supplied in a separate box, with a camel's hair pencil to use it with.

\*\*\*

An extraordinary success has been made by the introduction into this country of some American Shaker compounds called Mother Siegel's Syrup and Pills. The proprietor names in our advertisement pages some chemists and the quantities they have sold, and at the same time shows how it has been done. One firm sold 400*l.* worth in two months.

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**LOEFLUND'S EXTRACT OF MALT.**—Since the demand for concentrated extracts of malt has largely increased Mr. Edward Loefflund, of Stuttgart, whose preparation had a high reputation in Germany even before any formula was published in the German Pharmacopœia, has opened a dépôt in London, at 11 Jewin Crescent, E.C., where samples of the simple extract, or of the same combined with cod liver oil, pyrophosphate of iron, or hypophosphate of lime, may be obtained.

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**SURGICAL INSTRUMENTS EXHIBITION.**—We announced last month that the Cutlers Company of London proposed to organise an exhibition of cutlery. It is now definitely arranged that an exhibition of cutlery in all its branches, including surgical and sword cutlery, will be held in May at the Cutlers Hall, 6 Cloak Lane, Upper Thames Street, E.C. The competitors must be workmen or apprentices, and one prize consisting of an illuminated certificate of merit will be given in each of the above-named classes. One hundred pounds will be placed at the disposal of the judges, to be awarded at their discretion to the winners of the certificates.

NOW THAT so many complaints are being made of the sale of medicines and proprietary articles by grocers, stores, and others, we may direct attention to the announcement made among our advertisements in connection with La Trobe's Soluble Cocoa—namely, that it is supplied through chemists only, and is refused to all other trades. This is a system which might be extended with advantage both to manufacturer and retailer.

\*\*\*

WE like to meet with a well-written pamphlet which is avowedly an advertisement, though we object to the same kind of thing when it comes to us in the form of a medical treatise. Dr. Lalor's pamphlet on "The Origin of Life and the Causes of Death," which is intended to advertise and recommend his well-known medicine, Phosphodyne, belongs to the former class. It is clearly written, and contains much interesting information as to diet and disease.

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**SOLUBLE ESSENCE OF GINGER.**—Mr. Hay, of Hull, whose preparation we have previously mentioned as of superior excellence, has lately sent us a sample of essence of ginger, which is at least 30 per cent. stronger than his previous product, and yet mixes with water even more perfectly. It takes a large proportion of the essence to cause any milkiness at all in the water, and in any such proportion as that used for gingerbeer it dissolves without a trace of cloudiness. Gingerbeer or cordials made with this essence are strikingly superior both in appearance and flavour.

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**FLORVITA** is the name of a very concentrated compound of phosphates and nitrates, intended to be used as a fertiliser, especially for kitchen, fruit, and flower gardens, and for flowers in pots in cases where the application of manure on a large scale is not practicable. This article is prepared by Messrs. Prentice Brothers, of Stowmarket, who are well known as large makers of artificial manures, and they put it up handsomely in 1*l.* bottles, especially for chemists' sale. The article has been tested by practical gardeners with excellent results. We shall experiment with it during the forthcoming spring, and shall have pleasure in reporting the result.

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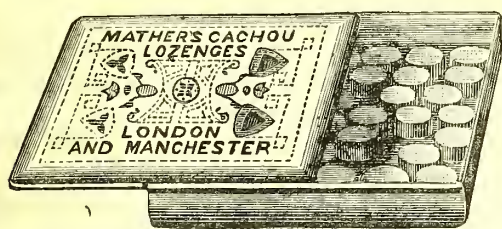
**PATENT MEDICINE PROPRIETORS** who are fascinated by the offers of certain newspapers to take their products in payment for advertisements, on the profession that they will be planted in some new foreign markets, should take care to have the contract very definitely worded. We have heard of some well-established proprietary articles being hawked about London during the last month at 10 per cent. under makers' prices, and it has turned out on inquiry that the trustful proprietors were happy in the belief that their precious balms and cordials were by this time developing health and happiness in Polynesia, Siberia, and adjacent planets.

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**PURE PALM SOAP.**—Messrs. F. Newbery & Sons are selling a soap made of nothing but palm oil with sufficient alkali to saponify it. It is manufactured on the estate of Edward S. Morris & Co., of St. Paul's River, Liberia, West Africa, who state that they make the oil into soap "beneath the palm tree," and are thus able to preserve its natural sweetness. When imported palm-oil is sure to be more or less rancid. The odour of palm-oil minus the rancidity has some approach to that of violets, and in this product nothing is added in the way of artificial perfume. The soap has a very softening effect, and though the price is rather high, it will probably become popular on account of its purity.



JAHNCKE'S METAL BOXES for wax vestas, lozenges, and such like purposes, are a great improvement on those generally in use. They are made with a sliding lid, have no



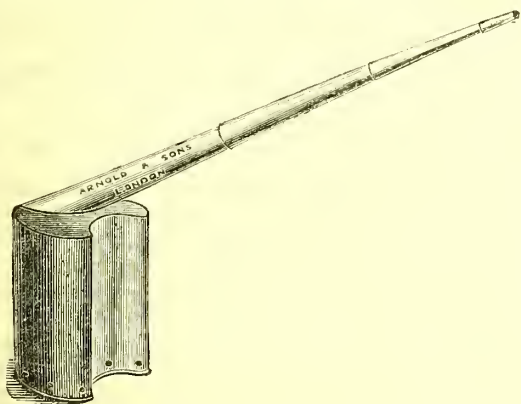
corners, and lie conveniently in any pocket. The drawing shows a remarkably cheap pennyworth of cachou lozenges, for which Jahncke's boxes are used, brought out by Mr. Mather.

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**PRINTING LABELS ON BOTTLES.**—We have seen this month some remarkable samples of bottles labelled by a process invented, we believe, in Germany. The labels are printed on the bottles themselves by a single operation; neither paper nor mucilage is required; there is no trimming or moistening of labels; the bottles are placed in the hands of a printer, who delivers them at the rate of 1,000 a day, labelled in a neat and finished style. The process is an actual printing—not etching or a sand-blast. The labels can be scraped off with a knife, though they are not affected by water. They are not so opaque as paper, and beautiful effects can be obtained by using a white ground on bottles filled with coloured substances. Bottles can be labelled when full, as easily as when empty, and the address of the vendor can be attached by this process to proprietary articles. Labelling by this method is said to cost no more than by that now in use. We hope to be able to give further particulars shortly.

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**DR. SHEPARD'S VAPORIFIER.**—The apparatus figured below, and made by Messrs. Arnold & Sons, of West Smithfield, is intended as a "vaporifier," a bronchitis kettle, an inhaler, and a portable vapour bath. It has no bottom, but is to be placed in a common saucepan of boiling water, the perforations at the base allowing the liquid to enter readily.



The crescent-shaped front allows the saucepan to be filled without removing the apparatus. Inside, at the top, it contains a movable wire-gauze chamber, into which medicaments may be introduced. By removing half the steam-tube, and fitting a mouthpiece to it, an inhaler is produced. The whole is packed in a cardboard case, and retails at 5s.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, successor to L. de Fontaine-morean & Co., 4 South Street, Finsbury, London; and at Paris and Brussels.]

Applications for Letters Patent:—

- Bottle Filler and Stopper.**—No. 724.—W. Bull, of 4 Lancaster Place, Strand, London, engineer. A new or improved machine or apparatus for filling and closing glass and other bottles. Dated February 22, 1879.
- Bottle-stoppers.**—No. 725.—W. Bull, of 4 Lancaster Place, Strand, London, engineer. Improvements in forming and fitting bottles and stoppers. Dated February 22, 1878.
- Bottle-stoppers.**—No. 491.—W. Street, of Kingston-on-Thames, Surrey. Improvements in stoppers for bottles. Dated February 7, 1879.
- Bottle Washing and Rinsing Machine.**—No. 790.—W. Laing, of Monkwearmouth, Durham, licensed victualler. An improved bottle washing and rinsing machine. Dated February 26, 1878.
- Citrate of Magnesia.**—No. 461.—G. Wheeler, of Hoxton, London. Improvements in the manufacture of citrate of magnesia or other effervescent compounds, and in apparatus therefor. Dated February 5, 1879.
- Collodion.**—No. 718.—W. F. Jack, of Mark Lane, London, accountant, and F. Greening, of Southall, London, engineer. Improvements in the production of compounds containing collodion, or substitutes for collodion, and in the applications of the same, and in apparatus to be employed in such applications. Dated February 22, 1879.
- Colouring Matters.**—No. 447.—C. Castbélaz, of Manchester, manufacturing chemist. Novel products and colouring matters derived from chlorophthalic acids and nitrochlorophthalic acids. Dated February 4, 1879.
- Corking and Drawing Machine.**—No. 841.—J. Gullery, of Belfast, mechanic. Improvements in corking and drawing machines. Dated March 3, 1879.
- Decomposition and Oxidation of Chemical Compounds.**—No. 698.—H. J. Smith, of Glasgow, Doctor of Philosophy. An improved mechanical contrivance to be used in processes involving the formation, decomposition, and oxidation of chemical compounds or mixtures. Dated February 21, 1879.
- Dentists' Chairs.**—No. 847.—W. R. Lake.—A communication from G. W. Archer, of Rochester, N.Y., United States, manufacturer. Improvements in adjustable chairs, chiefly designed for the use of dentists and hairdressers. Dated March 3, 1879.
- Medicinal Rhubarb.**—No. 786.—J. W. Swan and B. S. Proctor, of Newcastle-on-Tyne. Improvements in medicinal rhubarb and its preparations. Dated February 26, 1879.
- Phosphates.**—No. 814.—L. W. Beck, of Antwerp, Belgium, manufacturer. Improved process and apparatus for the production of precipitate and assimilable phosphates. Dated February 28, 1879.
- Preventing the Nauseous Taste of Cod Liver Oil.**—No. 719.—G. H. Aitchison, of Edinburgh. Improvements in the preservation of and the getting rid of the nauseous taste and smell of cod liver oil. Dated February 22, 1879.
- Separation of Sulphur from Ores.**—No. 713.—O. C. D. Ross, of 50 Trafalgar Road, Peckham, civil engineer. Improvements in the production or separation of sulphur from native ores and other substances, and in the apparatus for effecting the same. Dated February 21, 1879.
- Sulphuric Acid.**—No. 705.—W. G. Stryke, of Wicklow, Ireland. Improvements in or applicable to apparatus for the manufacture of sulphuric acid for the purpose of regulating the draught in such apparatus. Dated February 21, 1879.

Letters patent have been issued for the following:—

- Alkali.**—No. 3166.—H. Brunner, of Appleton, Widnes, Lancashire, manufacturing chemist. Improvements in the manufacture of alkali. Dated August 10, 1878.
- Appliance for Corns.**—No. 3157.—M. Wilson, of Leadenhall Street, merchant. An improved appliance for corns, bunions, abrasions, or protuberances. Dated August 9, 1878.
- Bisulphide of Carbon.**—No. 3386.—R. W. Papineau, of 39 Lockington Road, Battersea Park Road, London. Improvements in the mode of employing bisulphide of carbon and other volatile solvents, and in the means adopted for recovering various substances of commercial value from their solutions. Dated August 27, 1878.

- Bottle-stoppers.**—No. 3807.—L. Vallet, of Liverpool. Improvements in and relating to stoppers, and bottles for containing aerated, gaseous, or other liquids, and in apparatus employed for bottling such liquids, and means of stoppering. Dated September 27, 1878.
- Bottle-stoppers.**—No. 4839.—D. Rylands, of Ardsley, near Barnsley, Yorkshire. Improvements in means for stoppering bottles or other hollow articles. Dated November 27, 1878.
- Cork Extractors.**—No. 3212.—C. Price, of Wolverhampton, safe and lock manufacturer. Improvements in corks, and in the means or apparatus employed for drawing corks from bottles. Dated August 14, 1878.
- Covering Casks for containing Caustic Soda.**—No. 5052.—F. H. Mort, of Widnes, Lancashire, alkali manufacturer. Improvements in closing or covering drums or casks for containing caustic soda or other like substances. Dated December 10, 1878.
- Curing Sand Crack.**—No. 3350.—W. A. South, of New Boud Street, London. An apparatus to be applied to the hoofs of horses and other like animals during the operation of preparing such hoofs for the cure of the disease known as sand crack. Dated August 24, 1878.
- Disinfecting Powder.**—No. 4311.—R. E. Colbert, of Old Ford Road, London. An improved disinfecting powder or composition. Dated October 26, 1878.
- Medicinal Beverage.**—No. 4483.—A. Nelson, of Margate, Kent. An improved preparation or beverage having nourishing and medicinal qualities. Dated November 6, 1878.
- Medicinal Compound.**—No. 3529.—C. D. Rowe.—A communication from A. Borchers, of Valparaiso, Chili. Improvements in and relating to the use and preparation of the *Eugenia cheken*, a plant indigenous to the soil of Chili, not hitherto known or used as a medicine in Great Britain. Dated September 6, 1878.
- Plates for Artificial Teeth.**—No. 5112.—J. H. Gartrell, of Penzance, Cornwall. Improvements in apparatus for the manufacture of plates for artificial teeth. Dated December 13, 1878.
- Respirator.**—No. 5174.—K. N. Douglas, of Bournemouth, Hampshire. An improved respirator. Dated December 17, 1878.
- Sulphuric Acid, &c.**—No. 4650.—T. Clarke and E. Smith, both of Torquay, Devonshire. Improvements in the manufacture of sulphuric acid, hydrochloric acid and ammonia, and in the apparatus employed therein. Dated November 16, 1878.
- Surgical Appliances, &c.**—No. 3346.—E. G. Brewer, of Chancery Lane, London. Improvements in furniture and gymnastic and exercising apparatus or appliances, also applicable to surgical, medicinal, and other purposes. Dated August 24, 1878.
- Surgical Vice.**—No. 3461.—W. W. Brereton, of Oughternard, Galway, Ireland, surgeon. An improved surgical vice. Dated August 31, 1878.
- Syringes.**—No. 3444.—G. J. Stanford.—A communication from W. W. Stewart, of Brooklyn, N.Y., United States. Improvements in syringes. Dated September 16, 1878.

#### ABSTRACTS OF SPECIFICATIONS.

For permission to print the following we are indebted to the courtesy of the *Engineer*:—

- 2376. Ammonia, METHOD OF AND APPARATUS FOR THE COMPLETE PURIFICATION OF COAL GAS BY CONCENTRATED LIQUID AMMONIA, &c.** *J. Hammond.*—Dated June 14, 1878. 6d.

The liquid ammonia, impregnated with impurities from the crude gas, is received in an underground tank, in which a continuous circulation is maintained by pumps in connection with high tanks, arranged to retain the liquor of the greatest specific gravity for the manufacture of sulphate of ammonia, or for concentration and distillation of strong liquid ammonia. The overflow from the high tanks, after passing through a series of pipes immersed in cold water, returns to pumping tanks, and is forced through a series of cast-iron towers to purify it from carbonic acid and sulphuretted hydrogen before being brought into close contact with the gas. These towers are constructed so as to form distinct chambers for the cold liquor entering them, and the purified liquor passing to the purifying vessels. Distinct chambers are formed to heat by steam the liquor passing through tubes in the chamber, and for the gases escaping from the heated liquor. A vacuum is produced in the gas-chamber by a pump, and the chamber is filled to a proper height with pebbles or punice-stone, and the heated gas-liquor made to splash over it, and in descending through it is met by a stream of purified gas to remove the gases from the liquor. The gases are then forced through vessels containing milk of lime and strong gas liquor for the removal of carbonic acid, and through vessels containing sulphuric acid to recover any small amount of ammonia.

- 2670. Antiseptic Bandages or Ligatures, APPARATUS FOR, &c.** *Conrad.*—Dated July 4, 1878.—(A communication.) 6d.

The apparatus is arranged as a receptacle for bandages, and is formed in two parts, one of which can be hung against the wall when used for irrigating purposes as an irrigator or injector, while the other part can be used as a basin for the bandages.

- 2718. Bark Mill, E. V. Brown.**—Dated July 6, 1878. 6d.

This consists of a pair of crushing or breaking rolls and a grinding mill so arranged with respect to each other that the bark or other material will as it leaves the rolls fall between the grinding surfaces of the mill, which will reduce it to the state required by the tanner.

- 2517. Camphor in the Manufacture of Explosive Compounds, F. Wirth.**—Dated June 24, 1878.—(A communication.) 2d.

This consists in reducing the explosive property of the compounds, especially of preparations of nitro-glycerine, by adding to such compounds, camphor, or substances having affinity with camphor.

- 2477. Electric Lighting, APPARATUS FOR, R. Werdermann.**—Dated June 21, 1878. 8d.

An electrode of any convenient section is fitted in a holder connected with one pole of the battery or other source of electricity. Above and in contact with the surface of this electrode is placed another of much smaller section, and which is kept in a vertical or inclined position by a holder, in which it slides, and is kept in contact with the larger electrode by weight, spring, or other suitable means, so that as it is consumed the circuit is never broken, and a steady light is emitted by the heating to incandescence of the smaller electrode at the point of contact with the larger one.

- 1958. Filtering Apparatus, H. E. Newton.**—Dated May 15, 1878.—(A communication.) 6d.

Wooden plates are used as filtering mediums in place of the ordinary filtering cloth, and should the side of the plate in direct contact with the semi-fluid become choked, the plate may be turned so as to bring its other side in contact with the semi-fluid, thus cleaning the plate by the filtering process itself.

- 2637. Fires, APPARATUS FOR LIGHTING, A. Earp.**—Dated July 2, 1878.—(Not proceeded with.) 2d.

Asbestos is placed in a trough, and petroleum or any other combustible oil or hydrocarbon poured over it, when the trough is placed in the grate and a match applied. A hole is formed in the centre of the trough, through which air may pass to effect a more complete combustion of the oil or other combustible employed.

- 2475. Fires, APPARATUS FOR EXTINGUISHING, J. C. Newburn.**—Dated June 21, 1878.—(A communication.) 6d.

The gas is generated in two cylinders, above which is a funnel for supplying water and the salt or alkali, a cock being placed between the funnel and each cylinder. There is a trough for acid, below which are two reservoirs communicating with the cylinders. The cylinders are alternately supplied by their funnel with the water and salts or alkalies necessary, say, 1 lb. of bicarbonate of soda to 10 gallons of water; the funnel and the cylinders are then closed, and the acid cistern supplied with sulphuric acid in the proportion of 1 lb. of acid to 10 gallons of water. An exit pipe leads the gas generated from each cylinder, the two uniting and being provided with a cock.

- 2591. Fuchsine, FOR GIVING IRIDESCENT COLOURING TO FLOWERS, &c., J. Tarry.**—Dated June 28, 1878.—(A communication.)—(Not proceeded with.) 2d.

The article is coloured with a solution of fuchsine in spirit varnish and then acted upon by a discharging agent, preferably chlorine in the form of hypochlorite of calcium.

- 2350. Gas MANUFACTURE, &c., C. D. Abel.**—Dated June 13, 1878.—(A communication.) 8d.

Hydrogen gas is produced by the action of sulphuric acid on zinc or iron, the gas being then carbonised by coming in contact with volatile hydrocarbon liquid, such as naphtha, benzene, and the like, and afterwards conducted directly to the burner of the lamp. Or in place of hydrogen, binoxide of nitrogen is produced by the action of nitric acid on copper, and is then brought in contact with bisulphuret of carbon, giving a very brilliant flame when burnt.

- 2556. Gelatinising Bone, APPARATUS FOR, &c., F. B. Houghton.**—Dated June 26, 1878.—(Not proceeded with.) 2d.

Steam, at a pressure of 100 lbs. to 200 lbs. per square inch, is introduced into the digester, in which the bones are contained and covered with water, the digester being caused to revolve in any convenient manner.

- 2636. Ink, WRITING AND CANCELLING, H. and W. S. Richmond.**—Dated July 2, 1878. 4d.

The ink consists of the following ingredients:—1 part eosine, 4 parts animal black, 2 parts animal blue, 1 part cupric chloride, 3 parts ammonium chloride, 2 parts sodium chlorate, and a sufficient quantity of ammonium chloride, glycerine, lamp-black, water, and oil to bring the ink to the proper consistency.



**2574. Indigo, PREPARING AND TREATING, W. Marriott.**—Dated June 26, 1878.—(Not proceeded with.) 2d.

A current of electricity is passed through a solution of bisulphite of soda, or bisulphite of potash, until one or other of the solutions will reduce or react on indigo in presence of an alkali or alkaline earth.

**2618. Linseed Oil and Turpentine IN THE PREPARATION OF PAINTS—SUBSTITUTE FOR, J. G. Wilson.**—Dated June 29, 1878.—(A communication.) 2d.

One hundred parts colophony and 20 parts crystalline soda are mixed with 50 parts water, the mixture being then diluted with 250 parts water and 24 parts caustic ammonia. The product of a syrupy consistency is capable of being ground and mixed with the colouring matter in the ordinary manner, and without the addition of linseed oil, turpentine, or dryers.

**2658. Magnesium, MANUFACTURE OF, T. Heston.**—Dated July 3, 1878.—(Not proceeded with.) 2d.

The magnesian chloride is fused in a retort, and hydrogen and carbonic oxide gases, or one of them, is or are caused to pass through the retort whilst the magnesian chloride is in a state of fusion.

**699. Meat, PRESERVATION OF, A. Hugentobler.**—Dated July 5, 1878. 2d.

The meat is boned, and is barreled by layers with a pickle composed of one part of acetate of soda and one part of distilled rain water, to which pickle an addition of acetate of soda is made in the following proportion:—For each 100 lbs. of meat barreled with 40 lbs. of pickle, 20 lbs. of acetate of soda equally divided and distributed among the layers must be added.

**2400. Pyrometer, F. A. J. Baptiste.**—Dated June 17, 1878. 6d.

A vessel of porcelain is placed in the chamber in which the heat is to be measured, and water or other liquid is caused to flow into the lower part of this vessel, and out at its upper part. In the pipes leading to and from the vessel, thermometers are placed side by side, so that the temperatures of the supply and discharge can be easily compared. The elevation of temperature which the liquid undergoes in passing through the vessel, multiplied by a constant number, depending on the nature of the liquid and the quantity passed through the vessel in a given time, will then give the actual excess of the temperature of the chamber above that of the liquid supply.

**2519. Pyroxyline AND OTHER NITRO-CELLULOSE MANUFACTURE, F. Wirth.**—Dated June 24, 1878.—(A communication.) 4d.

This consists in the manufacture of nitro-cellulose by the use of cellulose, which, previous to the nitrification, has been converted into a fine powder.

**2177. Quinons, E. Ulrich.**—Dated May 21, 1878. 4d.

Added to a dry quinon is a strong mixture of sulphuric acid and salt-petre, or nitric acid. This is heated under pressure in a closed vessel until nitro-quinon is produced. By continuing the heating process under pressure, dye or colouring matter is produced.

**2449. Soda, MANUFACTURE OF, H. Unger.**—Dated June 19, 1878.—(Complete.) 6d.

This consists in dividing the process relating to the absorption of carbonic acid into two partial processes. In the first part the ammoniacal solution of salt is exposed in thin but extensive films, and in form of fine spray, to contact with the gases obtained from kilns or by combustion, these gases simply passing without pressure over the surface of the liquid. By these means one equivalent of carbonic acid is caused to be taken up by the liquid. In the second part of the process the pure gas re-obtained by calcination of the bicarbonate of soda produced is applied substantially as hitherto.



#### DIVIDENDS.

**KEMP, GEORGE, Sheffield, surgeon.** Third and final of 2s. 6d., at Camm & Corbridge's, 133 and 135 Norfolk Street, Sheffield, on and after February 10.

**MACINTOSH, THOMAS, manufacturing chemist, Ardclach Chemical Works, near Nairn.** First and final, at J. & H. Mitchell's, solicitors, Pitlochry, on April 15.

**SUGDEN, JOSEPH, Silver Street, Halifax, dyersaler.** Second and final of 2s. 10d. at J. W. Close's, 32 Park Row, Leeds.

#### PARTNERSHIPS DISSOLVED.

**ARNOTT BROTHERS & Co., 34A King William Street, London, and Tower Chambers, Liverpool, merchants and chemical manufacturers.** January 31, as regards T. R. Arnott.

**BROOKSIDE CHEMICAL COMPANY, Oswaldtwistle, Lancaster, chemical manufacturers.** August 21.

**CARTWRIGHT BROTHERS, 4 Water Lane, Great Tower Street, London, oil, colour, and chemical merchants.** December 2. Debts by W. M. Mead.

**CLAYTON, BROTHERS, Farmer's Road, Kennington Park, Surrey, mineral water manufacturers.** November 28.

**HARCOURT & Co., 35 and 36 Water Street, Newry, Down, chemists.** June 7, as regards W. R. Harcourt and Elizabeth Anderson. Debts by R. Anderson.

**HIGHLEY & EVERITT, Hinckley, Leicester, and Hawkesbury Chemical Works, Foleshill, Warwick, chemical manufacturers.** January 23.

#### SEQUESTRATIONS.

**CORBET, KENNETH, a shareholder of the City of Glasgow Bank, M.D., Beaulieu.** February 17.

**MACKENZIE, JAMES, aërated water manufacturer, Temple Lane, Dundee.** March 3.

**PARK, ROBERT, surgeon, Glasgow.** February 15.

**WATT, ALEXANDER, farmer and chemical manure manufacturer, Stynie, Speymouth, Elgin.**

#### LIQUIDATIONS.

**ADAMS, JOHN, Burslem, surgeon.** March 4.

**BREW, JOHN ARCHER, 71 East Street, Brighton, chemist.** March 3. At H. W. Banks's, 23 Coleman Street, London.

**COPE, WILLIAM HENRY, 114 High Cross Street, Leicester, surgeon.** February 10.

**CUNNINGHAM, MURDOCH GREY, 12 Catherine Street, Salisbury, dentist.** March 3.

**EARL, WILLIAM, Edge Hill, Liverpool, and PEARSON, WILLIAM, Spekefield Cottages, Edge Hill, trading as Earl, Pearson & Co., at Elm Road, West Derby Street, Liverpool, mineral water manufacturers.** February 7.

**EVANS, DAVIS, & EVANS, JOHN JOSIAH, 211 High Street, & DAVIES, JOHN, 31 High Street, Swansea, chemists, trading as Evans & Davies, at Lilly Dale Colliery, Bucknall, Stoke-on-Trent, colliery proprietors.** February 22.

**FENTON, FERRAR, Britannia Mills, Batley Carr, and Bradford Street, Batley, also Railway Street, Dewsbury, engineer, chemist, shoddy, and manure manufacturer.** February 3.

**HALLSWORTH, JOSEPH, Birtle-cum-Bamford, near Bury, manufacturing chemist.** March 5.

**HENSLEIGH, HENRY, Dulverton, chemist and grocer.** February 17.

**HILL, THOMAS, Liverpool Road, Cadishead, near Warrington, surgeon.** February 21.

**HITCHIN, ARTHUR SAMUEL, Prince of Wales Yard, Wharf Street, and 117 Gresham Street, Leicester, sodawater manufacturer.** February 17.

**KENDAL, CUTHBERT ROBERT, Hexham, late Gateshead, surgeon.** February 24.

**KENDAL, JOHN HINTON, 14 Blagdon Street, Blyth, chemist, dentist, and tobaccoist, late Low Fell, and Salt Meadows, Gateshead, glass bottle manufacturer.** March 8.

**KERR, ARTHUR THOMAS HENRY, 17 Moor Lane, Preston, surgeon.** February 25.

**MCLEWEN, JOHN, Brook House, Moss Lane East, Moss Side, late 16 Piccadilly, and 2 Gore Street, Manchester, surgeon and M.D.** March 7.

**MACRAE, DONALD, 2 Backchurch Lane, Commercial Road, Whitechapel, late 75 Hackney Road, formerly Leyton, previously Walton, near Liverpool, surgeon.** February 11.

**MATTISON, WILLIAM, 47 West Holborn, South Shields, chemist.** February 24.

**MOSES, WILLIAM RUSSELL, 25 Gaythorn Terrace, Merridale Road, Wolverhampton, chemist.** February 17.

**MOSES, HENSON, Tunstall Road, Wolverhampton, chemist.** March 7.

**MUSK, ROBERT JOHN, and MUSK, WILLIAM HENRY, trading as Musk & Son, Wilmington, Hull, oil refiners.** February 4.

**NARRACOTT, HENRY, 29 Fleet Street, Torquay, druggist.** February 17.

**OCOCK, CHARLES, Dulverton, chemist and grocer.** February 10.

**ORAM, GEORGE ELLIS, Taunton, brewer, maltster, and aërated-water manufacturer.** February 20.

**PURSELL, JAMES, 33 Holly Avenue and 2 St. Nicholas Buildings, Newcastle, chemical broker.** February 12.

**SWIRE, MATILDA MARIA MERCY, trading as George Swire, Brixton Hill, chemist.** February 6.

**SYSON, EDMUND JOHN, Hartford, physician.** February 24.

**TYTE, LOUISA, Branton, chemist.** February 6.

**WILKINSON, CHARLES, and WILKINSON, DAVID, Linthwaite, Almondsbury, and WILKINSON, CHARLES HENRY, and SYKES, EDWARD, Slaithwaite, near Huddersfield, trading as Charles Williamson & Sons, at Slaithwaite and Trowbridge, oil merchants, soap manufacturers, and indigo refiners.** February 5.

#### BANKRUPTCY (IRELAND).

**COSGRAVE, WILLIAM, & BELL, ROBERT W., trading as Cosgrave, Bell & Co., Donegall Street, Belfast, wholesale druggists.** February 28. Sittings, March 25 and April 8, at 11.

# EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

## FOR DISPOSAL.

Specie jars, 13 inches high, gilt caps. 20/288.  
White covered pots, thick, 3 gross 1 oz. at 14s.  
1 gross 2 oz., 18s. per gross. Baildon & Son, Edinburgh.

2 cwt. excellent new English honey, in pots from 20 to 40 lbs. each, at 9d. per lb. "Mel," 110 Cheltenham Road, Bristol.

About 50 gross Codd's bottles. For price, &c., address, I. E. B., 27 Acton Street, Gray's Inn Road, W.C.

Surplus Stock.—12 packets Cooper's sheep-dipping powder; 3 1-lb. Calvert's carbolic acid, No. 3. 21/289.

Chcap.—Aitken's "Science and Practice of Medicine," 2 vols. What offers? B., 136 Hanover Street, Sheffield.

No. 4 sodawater machine, new gas work last year, and in good going order; will be sold cheap. 18/289.

Five painted tin cisterns, without taps, 80 to 100 gallons; also pill machine, little used, to cut 30, 18s. Dale, Chemist, Leeds.

The Chemist and Druggist, for 1861, '62, '63, and '64, and from June, '71, to end of '75. What offers? Bartlett, Chemist, Colyton, Devon.

Sixty-two *Pharmaceutical Journals*, 1877-78, and several books suitable for pharmaceutical students. N., Dispensary, Barking.

Fourteen volumes Braithwaite's "Retrospect of Medicine," 11s. Waring, 8 Warbrick Road, Blackpool.

Halse's medical galvanic apparatus, cost 10l. 10s., for 5l. 5s.; Baker's mixing machine, cost 2l. 5s. new, 38s. Stevens, Chemist, New Brompton.

Two pounds chloral hydrate; 9 lbs. acid fluorid and bottle; offers wanted. Cameron, Chemist, Beiford.

What offers for Rhind's "Vegetable Kingdom," value 28s.? T. Tait, Dispensary Street, Alnwick.

Iron mortar, 55 lbs., 9 pints, 10s.; another, 18 pints, 21s.; 10 new Wedgwood ditto; nest 24 drawers, unpainted; surplus books and sundries. R. C. Mason, Bromsgrove.

Offers wanted for 25 oz. quinine; 24 packets Calvert's pig powders; 1-ton platform weighing-machine, new. Harrop, Chemist, Middleton, Manchester.

A Cowper's parlour printing press, by Holtzapfel, 11 by 7½ inch bed, with about 80 lbs. assorted type, greater part nearly new, with rings, rule, ornaments, and other necessities suitable for chemist's printing. Bartlett, Chemist, Colyton.

Pulvermacher's Electric Bands, &c.—1 belt, 30 inches, 40s.; 1 belt, 40 inches, 50s.; 1 band and O. H., 40s.; 2 bands, O. B., 22s. each; 2 bands, S. B., 10s. 6d. each; 2 bands 4 B., 5s. each; 2 bands 1 B., 18s. each; 1 combined band, 50s.; 2 deafness chains, 21s. each; 1 No. 2 suspensor and 34-inch belt, 60s.; 1 chain battery, 84s.; 1 volta-meter, 2s. The prices marked are those at which the goods are sold, but any or all of the above, which have never been used, except the battery, can be had at half-price. W. G. Vaughan, Chemist, Aberystwyth.

Part contents of surgeon's dispensary, consisting of drugs and utensils of various kinds. Particulars from W. S. Harvey, Margate.

Evans' 4l. 4s. materia medica cabinet, excellent condition, 2l. 10s., or offers, bargain. Thomas Slater, Stone, Staffordshire.

Quantity of wax, not perfectly pure, but of very good colour; quite good enough for wholesale purposes. Price 1s. 1d. per lb. Herbert Kemp, Horncastle.

Quantity of large round Army biscuits, make capital dog biscuits, and sell well as such. Price 10s. 3d. per cwt.; sample two stamps. Herbert Kemp, Horncastle.

Twelve Epps' rheumatic, 1s. 1½d.; 2 ditto; 2s. 9d.; 12 rheumatic opodeldoc, 1s. 1½d.; 1 ditto, 2s. 9d.; 12 plimmonin, 1s. 1½d.; half price, or offers. Fuller & Co., Norwich.

First-class slide of drunkard's liver, also of healthy liver for comparison, with explanatory remarks; post free 3s. 2d., from Dr. Marsh, St. Helens, Lancashire.

Very handsome specie show jars, 27 inches high, exclusive of cover, with handsome gilt covers and mahogany stand, 7 inches high, grooved and fitted with brass rollers. 29/287.

Goodall's levigating and sifting machine; having no further use for it; for 12l., cost 20l.; as good as new. Further particulars if required. 5/290.

Quantity pure English honey, rather dark, 6d., suitable for oxymel; window carboys, cheap; end counter with drawers and cupboard. 15s. Floyd & Hicks, Bury St. Edmunds.

Gentleman's extra size 14-carat gold patent lever, fully jewelled, quite new, patent flat glass, excellent timekeeper, price only 3l. Frederick Hill, Macclesfield.

Forty-eight plumbago crucibles, assorted, Nos. 40, 60, 80, and 100, never been used; no reasonable offer refused. Address, in first instance, G. Blower, 38 Lowe Street, Whitmoreans, Wolverhampton.

Copper-extracting works, wet process.—Wanted to sell 300 tons of chinders; would lend use of works to extract them. Address, in first instance, G. J. Blower, 38 Lowe Street, Whitmoreans, Wolverhampton.

Forty 2s. numbers Vitrone's "Imperial Shakespeare," complete, uncut, nearly new, exchange for microscope; also 19-inch air-cushion, Maw's Fig. 1, page 64, perfectly new. Hoddinott, Bonndary House, Barnet.

Two mahogany-top counters, window enclosure, shelving, carboys, bottles, jars, in fact, the entire fittings for small chemist's shop; also set of books, pill-machine, scales, &c.; in one lot, cheap, or separate for prompt cash. A. R. Awbery, Henley-on-Thames.

Goldsmith's "History of the Earth," &c., old edition, 8 vols., perfect, 12s. 6d.; Chambers' "Algebra," 1s. 6d.; Buckmaster's "Magnetism and Electricity," new, 1s. 3d.; "Public School Latin Primer," 1s. 6d.; *Pharmaceutical Journal*, May, 1877, to May, 1878, 5s. F. G., 36 High Street, Abingdon.

Seventy-five pounds albumen; any reasonable offer accepted. Stamp for sample. 20/70.

Small printing-press, with types and other requisites, by Francis; Roger's patent weighing-machine and weights, to weigh up to 3 cwt., good as new. Apply, Beverley, Chemist, Fife, Keith.

Twelve gallous vin. aurant., P.B., superior quality, 4s. 3d. gallon, samples per post; 12 dozen lbs. Young's patent carriage candles, 8s. 8s. dozen. 206 Higher Broughton, Manchester.

Mahogany counter-case, plate glass, 2 feet 6 inches by 2 feet, 25s.; also mahogany counter-stand, 2 feet 6 inches high, with six shelves, 10s., both good as new. Apply, H. Hobson, Walsall.

Morris' Swiss cigarettes and mixture, retail value 2l. 11s. 6d., price 10s.; tincture press, half gallon, iron stand, quite new, 15s.; Squire's "Companion," 10th edition, new, 5s. Harrison, Chemist, Brownlow Hill, Liverpool.

Selling off.—Photographic views, 1s.; North Devon, 6d. each, 5s. dozen, all different; foreign stamps, 4d. hundred, 1,000 for 2s. 6d.; unused, assorted, 4d. dozen, 60 for 1s.; sheets sent on approval. Turner, Chemist, Totterdown, Bristol.

Two large handsome mahogany stands and bases for window show-jars, 1 large show-jar for window, 2 gilt caps, 2 plate-glass toothbrush-cases, 1 rosewood perfume-stand, and 3 bottles; a lot of window-brackets. Apply, 16 Bishops Road, W.

Pill machine, cuts twelve, 3s.; Sewell's "Dental Surgery," new, 3s.; box apothecaries' scales, 1s. 6d.; Bell's "Anatomy and Physiology," 3 vols., 3s.; Moxon's "Magnesia" (2s. 9d.), 1s.; bals. Canada, 10d. lb.; sulp. sub., 1 cwt., 10s. J. W. Adams, 54 Oxford Street, Salford.

Harris' "Principles and Practice of Dental Surgery," 10s.; Bell's "Diseases of the Teeth," 2s. 6d.; Clarke on "The Teeth," 1s. Address, W. Dongan, 172 Oxford Street, Manchester.

About 12 dozen 20, 40, and 60 oz. shop bottles, labelled; gallon tincture press, 12s. 6d.; three window globes, glass cases, scales, mahogany steps for counter, green glass bell aquarium, large, 5 gallons, 8s. 6d. Chemist, 34 High Street, Putney.

Two swan-necked pear-shaped York Glass Company's window carboys, height to top of stopper 4 feet, for 6l. the pair with blocks, very rare and difficult to make, value 12l.; Dunglison's "Medical Dictionary," 15th edition, clean as new, 6s. Hay, Chemist, 4 Regent's Terrace, Hnll.

Captain Burnaby's "Ride to Khiva," 12s., cost 21s., 1876; Churchill's "Consumption and Tuberculosis, Cause, and Treatment by Hypophosphites," 14s. 6d., cost 21s., 1875; Brand & Cox's "Dictionary, Science, Literature, and Art," half Russia, 3 vols., cost 5l. 5s., 2l. 10s., 1867; Ramsbottom's "Midwifery," fine plates, 14s. 6d.; Hooper's "Medical Dictionary," 10s. Priestley, Alresford, Hants.



**A bargain.**—Eight mahogany glazed doors (suitable for wall-fittings), in good condition, size—7 feet high, 42 inches wide; four smaller ones, and other fittings; the lot for 70s. Apply, Sharp Brothers, 12 Southampton Row, W.C.

**Fulwood's** fine imperial annatto, 10 6-oz. blocks 3s. 6d.; Ol. Rosmarini, 1s. 6d. lb.; will exchange for 2s. 9d. Whelpston's soiled or clean. Plumbi carb., 18s. cwt.; cash with order. M. Adams, 54 Oxford Street, Regent Road, Salford.

**Lizar's** anatomical plates, beautifully coloured, in 12 parts, No. 11 missing, perfect condition, cost 5l. 15s.; *Chemist and Druggist* from 1870 to 1878 inclusive, first five years bound; *Pharmaceutical Journal*, unbound, from 1873 to 1878. What cash offers? or exchange in botanical works. J. Fingland, Thornhill, N.B.

**Sheep ointment machine**, by Gibson, Stamford; pair 24-inch stones in frame, and driving gear;  $\frac{1}{2}$ -horse-power upright steam-engine; large soda-water carbonator (Wenham Ice Company); coffee-mill; coloured illumination lamps with wicks; 6-cell Smee's battery, with rackwork in mahogany case. Cheap. Rainey, Chemist, Spilsby, Lincolnshire.

28 lbs. genuine pulv. acid tart., 1s. 4d. lb.; bottle H.G. Hotch. ol. menth., 12s. 6d.; 28 lbs. orange shellac at 9d.; handsome show jar, height with gilt cover 26 inches, design, pharmaceutical, carb. soda, price with stand 37s. 6d. cash, or exchange patent medicine. H. Hare, 81 South Street, Goole.

**Brathwaite's** "Retrospect of Medicines," 2 volumes; Royle's "Materia Medica"; "Theory and Practice of Midwifery," Churchill; "Anatomist's Vade Mecum"; "Surgeon's Vade Mecum"; Thompson's "Conspectus"; 10s. 6d. the lot, or offers; 4 1-oz. bottles caustic, 2s. 10d. oz.; 3 dozen 6d. Tomlinson's butter powder, 2s. 6d. dozen. Day, Chemist, Dewsbury.

**New or good condition**, Erichsen's "Surgery," 450 engravings, 12s. 6d., cost 28s.; Smellie's "Midwifery," very scarce, two volumes, 40 page copper plates, 12s. 6d. free; "Headache, Cause and Treatment," 1s. 3d.; "Venereal Diseases" (Shuldham), 1874, 3s. 3d., both new, 4s. free; Churchill's "Diseases Children," 800 pages, 6s.; new tooth forceps, eight, in morocco case, 30s. Turner, Chemist, Tottersdown.

**To Dentists.**—Edwards' improved apparatus for administering and economising nitrous oxide gas, in handsome case complete, price 17.; child's vulcaniser, medium size, with flask, and thermometer complete, 25s.; dentist's chair, mahogany, and green velvet, 7l.; apparatus for manufacturing nitrous oxide gas, with the latest improvements, 6l.; 50-gallon iron gas-bottle, 14. Dougan, 172 Oxford Street, Manchester.

**For Sale or Exchange.**—A 24-inch-plate electrical machine, complete, by Horne & Thornthwaite; a 12-inch ditto; a 9-inch by 12 cylindrical, with brass conductor; a 15 by 10 ditto; also a quantity of electrical apparatus; a small air-pump and a quantity of pneumatic apparatus. List and particulars upon application. W. Maggs & Son, pharmacists, Yeovil.

**Mahogany plate-glass show-case**, similar to Maw's fig. 43, length 3 feet, height 2 feet 6 inches, width 1 foot 7 inches, 2 shifting plate-glass shelves inside, 2 movable velvet-lined trays, and silvered-glass back to open, in splendid condition, price 5l.; 2 specie jars—designs, pharmaceutical arms and Royal arms, labels, "Quinine" and "Carbonate Soda," each fitted with gilt covers, 2 ebonyed bases with mahogany plinths, forming substantial stands for the jars, height of jars 26 inches, in capital condition, price 3l. each; Leath & Ross's 2-guinea show-case, containing 128 sixpenny articles, price 21s. Longley, 73 North Street, Leeds.

**Thirty 1s. Brown's** aromatic compound for poultry, 16s.; 11 1s. Reinhart's cigarettes for asthma, 6s. 6d.; 32 2s. ditto, 35s.; 32 1s. 3d. Reinhart's herbal tobacco, 22s.; 10 2s. 6d. ditto, 16s.; 11 1s. Brook's Arabian food, 6s.; 6 1s. 6d. ditto, 5s.; 8 lbs. spent pomade millefeur (jar), 4s. 6d.; 8 lbs. ditto ditto jasmijn (jar), 4s. 6d.; 1 4s. 6d. Goddard's plate-powder, 2s. 9d. Sneath, Chemist, Newark.

**Fittings for a chemist's shop**, 12-ft. run, fixtures as Maw's 197; 10-ft. mahogany to counter, fig. 147; 6-ft. ditto ditto, very elaborate dispensing screen, 6 ft. long, glass case at each end, and silvered glass centre; 3-ft. counter case, fig. 16; desk and easel, fig. 21; 4-ft. wall case and cupboard under, fig. 198; 8 doz. gold-labelled shop-bottles, 18 4-lb. blue jars, 55l., a bargain; also 2 Spanish mahogany counters, 12 ft. long, and 10 ft. long, a bargain; all numbers quoted in my advertisements refer to Maw's illustrated list as the best way of describing them. E. Natali, 207 Old Street, almost opposite Great Eastern Street.

**A seed-grinding hand-mill**, with fly-wheel, excellent for grinding own linseed meal, will hold about 1 bushel, as good as new, painted, and could stand in shop, price 2l., cost 4l. 10s.; an excellent tincture press, (4-gallon), 10s.; dispensing scales, mahogany stand and drawer, as fig. 7 Maw's list, 10s.; 2 55-gallon olive-oil cisterns, with grass taps—one has two taps and double bottom, to ensure oil being drawn bright, price 35s. each; 40 tooth forceps and 3 keys, all as good as new, 3s. each, or 30s. per dozen; an amateur's lathe, with every appliance, must have cost when new 10l., price 4l.; a large bellows blow-pipe and a large assortment of chemical apparatus, formerly the property of Dr. Birt Davies, the late Borough coroner. The whole of the above may be seen at any time at the Post-office, Gooch Street, Birmingham.

**A quantity of mahogany top**, moulded front edge, and deal mould and panelled fronts, painted and grained mahogany, from 4 ft. long to 15 ft. long, 3 ft. high, 10s. per ft. run, 24 in. wide, fig. 147; several mahogany top cupboards, as under cases, figs. 198, 199, and 200, 3 ft. high, 15 in. wide, painted and grained mahogany, 12s. per ft. run, from 4 ft. to 12 ft. long; 50 nests mahogany-fronted dovetailed drawers, glass knobs and gold labels, 2s. 6d. per drawer, in nests from 3 ft. to 15 ft. long and 2 ft. 6 in. high; if with lockers under and mahogany slab top, 3s. 3d. per drawer; mahogany-fronted shelving, from 10-ft. to 12-ft. lengths, 6d. per ft. run; 8-ft. glass case for wall, as fig. 200, equal to new, 14l. E. Natali, 207 Old Street, almost opposite Great Eastern Street, London.

**5-ft. 3-in. bent plate-glass counter case**, as fig. 41, 5l.; 3-ft. do. do., as fig. 16, 40s.; 7-ft. do. do., as fig. 97, 8l.; 4-ft., as fig. 95, 80s.; 5-ft., as fig. 96, 5l.; 6-ft., as fig. 99, 7l.; 3-ft., as fig. 100, 60s.; 3-ft. 6-in., as fig. 100, 65s.; 4-ft., as fig. 101, 80s.; 4-ft., as fig. 41, 80s.; 6-ft., as fig. 105, 7l.; 8-ft., as fig. 105, 9l.; several as figs. 27, 9, 10, very cheap; 3 mahogany paper stands, as fig. 67, 8s. 6d. each; a number of smaller glass counter cases, very cheap, also others as fig. 81, from 5s. each; tooth-brush cases, as fig. 52, 30s. each; as fig. 7, 28s.; as fig. 8, 30s.; sponge cases, as fig. 90, 90s.; as fig. 92, 5l.; desk and case, as fig. 21, 70s.; 5-foot dispensers' screens, as fig. 75, 5l.; as fig. 163, 4l.; 164, 5-ft. long, 6l. 10s.; 7-ft., 6l.; 4-ft. wall case, 3l.; several other very cheap screens. E. Natali, 207 Old Street, opposite Great Eastern Street.

**Shop rounds**, 9s. 6d. doz., labelled; 6 doz. 1½-oz. black stock bottles, japanned covers, 1s. 6d. each; 6 doz. jars, as fig. A, labelled, 2s. 6d. each; 1 doz. fig. D, gold covers, elaborately labelled, 11 in. high, 6s. 6d. each; 19 4-lb. blue jars, labelled, equal to new, 2s. each; 24 6-lb. do. do., 3s. 6d. each; 24 white do. 1s. 6d. each; 24 1-lb. brown jars, japanned covers, 6s. 6d. doz.; 24 4-lb. blue jars, japanned covers, 1s. 6d. each; 24 6-lb. do. do., 1s. 9d. each; 24 6-lb. do. do., 2s. each, all equal to new; 50 upright show bottles, white glass, 1 to 4 galls., 1s. 9d. to 6s. each; 5 spec. jars, Royal arms, equal to new, 28 in. high, with glass gold covers, and 9 in. square and round stands, 37. each; several others, 45s. each; a quantity of others, scroll pattern, 50s. pair; a number of carboys, from 1 to 6 galls., very cheap. E. Natali, 207 Old Street, opposite Great Eastern Street, London, E.C.

**Minor Students**—50 questions asked of a successful candidate, 1s.; 30 prescriptions given to dispense at the Minor, 1s.; Hints how and what to study, by a successful student, 1s.; 50 illegible prescriptions, 2s. 6d.; 60 mounted indigenous plants, 5s. "Chemist," care of Mr. Edwards, London House, Petham, Canterbury.

**Several 1, 2, 3, 4, and 5 grain pill machines**, to cut 24, 16s. 6d. each, best maker; several small homoeopathic cases, cheap; one 48 5-grain pill machine, 30s.; mortars; silvered plate-glass in black and mahogany frames; plate-glass shelving; 3 4-ft. nests drawers for under counter with label, paper, and other drawers, 65s. each; 1 each very elaborate dispensing screens, 5 ft. 6 long, 6 ft. long, and 6 ft. 6 long, with glass case at each side, looking-glass centre, with marble slab in front, silvered plate glass to back of cases, and shifting shelves, also tablets "Dispensing Department" on top of case, also three shelves the entire length of back for dispensing bottles, 8l. 10s. each, a bargain. E. Natali, 207 Old Street, opposite Great Eastern Street, E.C.

**Handsome mahogany dispensing screen**, as Treble's 136; handsome dispensing screens, as figs. 40, 163, 164, 165 Maw's; handsome dispensing counter, with screen on top, 7 ft. long, as fig. 159 Maw's; handsome 2 ft. 6 long upright plate-glass screen, written in gold "Prescriptions Carefully Prepared," with desk; upright counter-case and desk, as fig. 13 Maw's; tooth-brush case, as fig. 52 Maw's; label chest, as 26 Maw's; 18 mahogany bent-glass counter-cases, from 17s. 6d. each; 8 mahogany wall cases; 4 mahogany window enclosures; 15 mahogany-top counters, all sizes; 10 nests second-hand gold labelled shop drawers; 5 complete fittings of drawers, shelves, lockers, and cornice above, as fig. 190, 191, 196, 197 Maw's; 1 1-gall., 1 ½-gall., 2 1-qt. tincture presses; 3 pill machines; quantity gold-labelled shop bottles, jars, store bottles, ointment and pill jars, &c.; quantity mortars and pestles, all sizes; 3 shop lamps. Lloyd Rayner, 333 Kingsland Road, London, N.

**Smith & Clarke's** pectorine, 3 doz. 1s. 1½d. size, at 8s. doz.; ½ doz. ditto 2s. 9d., at 20s. doz. Wright's pilosaginc, 2 doz. 1s. 6d. size, 9s. doz. Hammond's pain paint, 74 doz. 1s. 1½d. size, at 7s. 6d. doz.; ½ doz. 2s. 9d., 18s. doz.; ½ doz. ditto 4s. 6d. size, 2s. 6d. Powell's embrocation, 6 doz. 1s. 1½d. size, 8s. 3d. doz.; ½ doz. ditto 2s. 9d., 20s. doz. Fenning's stomach strengtheners, 1s. 1½d., 8s. 6d. doz. Ridge's food, 2 doz. 8d. size, 4s. 6d. doz. Vicker's antilactic, ½ doz. 2s. 9d., at 20s. doz.; ½ doz. ditto 4s. 6d., 33s. doz. Kill cough, 2 doz. 1s. 1½d., 8s. doz. Evans' life assisting pills, 1 doz. 1s. 1½d., 7s. 6d. doz. Parc's worm killer, 2½ doz. 9d. size, 6s. doz.; ½ doz. 1s. 1½d. size, 8s. doz. Bothan's teething and fever powders, ½ doz. 1s. 1½d., 7s. 6d. doz.; 1 doz. 7d. ditto, 5s. doz. Pickering's soothing powders, ½ doz. 1s. 1½d., 7s. 6d. doz. Good's rheumatic pills, ½ doz. 1s. 1½d. size, 7s. 6d. doz. Bostock's aperient and worm powders, ½ doz. 1s. 1½d. size, 7s. 6d. doz.; ½ doz. ditto 7d. size, 4s. 6d. doz. Dr. De Jongh's cod liver oil, ½ doz. 9s. size, 50s. doz. Tomlinson's butter powder, ½ doz. 2s. 6d. size, 17s. doz. Coccus cacti (small), 6 lbs., 2s. lb. H. Atkinson, 196 High Street, Attercliffe, Sheffield.

**Waterproof bed-sheet with funnel in centre**, 20s., new; 5 2s. Squire's grand elixir, 6s. 3d.; 3 1s. 1½d. Cooper's aperitive seeds, 1s. 9d.; 2 2s. 9d. Snook's pills, 3s.; 3 1s. 1½d. ditto, 2s.; 2 1s. 1½d. Sawyer's bunion plasters, 1s. 3d.; 2 1s. 1½d. Lowcock's female wafers, 1s. 3d.; 2 1s. 1½d. ditto Excelsior ditto, 1s. 3d.; 5 Papier D'Albespyres, No. 1, 2s. 6d.; 4 ditto, No. 3, 2s.; 3s. 6d. Ross's cantharides oil, 2s.; 4 Ross's chiropo, 2s.; 5s. 6d. Ross's hair-curling fluid, 3s. 6d.; 2 3s. 6d. Ross's eye colour, 3s.; 1 5s. 6d. Ross's skin tonic, 2s. 9d.; 2 1s. Ross's liquid rouge, 1s.; 3 1s. 1½d. Virginian gum, 1s. 9d.; 2s. 6d. Savory's Datura tatula, 1s. 4d.; 3 1s. 1½d. Hart's ointment, 1s. 9d.; 2 1s. 1½d. Gabriel's sedative, 1s. 3d.; 4 1s. Sandwell's issue plasters, 1s. 5d.; 2 2s. Morson's pepsine globules, 2s. 6d.; 2s. 6d. Guffroy's cod liver drages, 1s. 6d.; 3 1s. 1½d. Beecham's cough pills, 2s.; 5s. 6d. Green's antiscorbutic drops, 3s. 6d.; 2s. 9d. Moxon's magnesia, 1s. 9d.; 3 2s. 9d. Wright's coal tar pills, 4s. 6d.; 7 1s. Smith's scouring drops, 2s. 11d.; 9s. De Jongh's cod liver oil, 5s. 6d.; 2s. 9d. Hall's chlorate potash, 1s. 9d.; 2s. 9d. Hibbert's antiseptic solution, 1s. 9d.; 2 3s. 6d. Aldridge's balm Columbia, 3s. 6d. Page, Chemist, Barnstaple.

**FORMULÆ.**

**Inseparable lime cream:** cold cream beautifully white, keeps well; 18 stamps each. 7/284.

**Excellent recipes for gonorrhœa, syphilis, piles, lumbago, scurvy, toothache;** 2s. each. 21/284.

**Formulæ for extracting fast and broken stoppers** in bottles, for cutting and drilling holes in glass with a fine-pointed chisel. Price 2s. 6d. Apply to W. Burgess, Mr. Buck, Bridge Street, Runcorn.

**Chilblain liniment;** chemical brass paste; composition for cleaning harness; French polish reviver; restorative cream (prevents hair turning grey); liquor sennæ comp.; liquor opii sedat.; olcum flavæ conc. (3j. to flj.); brilliantine (inseparable); fragrant foaming dentifrice (similar to Floriline); chemical food (improved formula, keeps well); magic neuralgic drops (never-failing remedy); pearly white pill coating; glycerine jelly (transparent); Kaloderma, or skin beautifier; cherry tooth paste (never ferments); marking ink (black or red); cement (equal to Coaguline); balsam elder flowers; aqua camphor. concd. 1 in 16; with many others, send stamp for list; the above are prepared and sold by a West-end firm; inexpensive to prepare and command ready sale; 5s. each (five for 17.). "Analyst," care of Mr. Warnes, 79 Galsford Street, N.W.

**Effervescing fruit saline.**—The formula of a saline similar to one of the preparations in the market will be sent free for 12 penny stamps. 19/287.

**Chilblain liniment,** very efficacious; lavender water, lasting and fragrant; rose odonto (the original); gonorrhœa mixture, a most valuable remedy, never fails; glycerine jelly (transparent); cleansing drench for cows, and condition powders for horses, both highly recommended by the principal veterinary surgeons; Shepperd's red pectoral balsam for coughs, colds, &c.; liniment for rheumatism. The above are inexpensive to prepare, and command a quick sale. 2s. each, or 6 for 9s. Minor, 4 Harbour Street, Folkestone.

**WANTED.**

Fowne's "Chemistry," cheap; state edition. Hawthorne, 62 Lambeth Road, London.

Attfield's "Chemistry," latest edition, cheap, cash. Elmitt, Horncastle.

Large marble mortar, mineral water machine. Chemist, 34 High Street, Putney.

Four carboys for window, with cut stoppers, not less than 26 inches high. Nichols on Chemist, Diss.

A case of dental specimens, suitable for hanging on door-post or between private and shop door. Barnard, Dentist, Columbia Road, Shoreditch East.

Attfield's "Chemistry," British Pharmacopœia, latest editions. 16 Market Place, Kettering. For cash, a lever sheep-dipping apparatus, or plans for making the same. Kemp, Chemist, Horncastle.

Three-grain pill machine, with rollers; Tomes's "Dental Surgery." Wright, Chemist, Burnley.

A few dozen cut-glass drawer-knobs; a few genuine bottles of black drops for sale; what offer? Address, B. W., 26 Clapham Road.

Two 6-gall. show carboys, pear-shape; show jar about 24-inch, without cover. Page, Chemist, Barnstable.

Gray's "Supplement," American "Dispensatory," Hollemback's "Materia Medica;" also tincture-press and percolator cheap P. B. H., Lingdale in Cleveland.

Microscope, of good manufacture, with mechanical stage, fine adjustment, and  $\frac{1}{4}$ -inch achromatic power. Symons, Chemist, St. John's Wood.

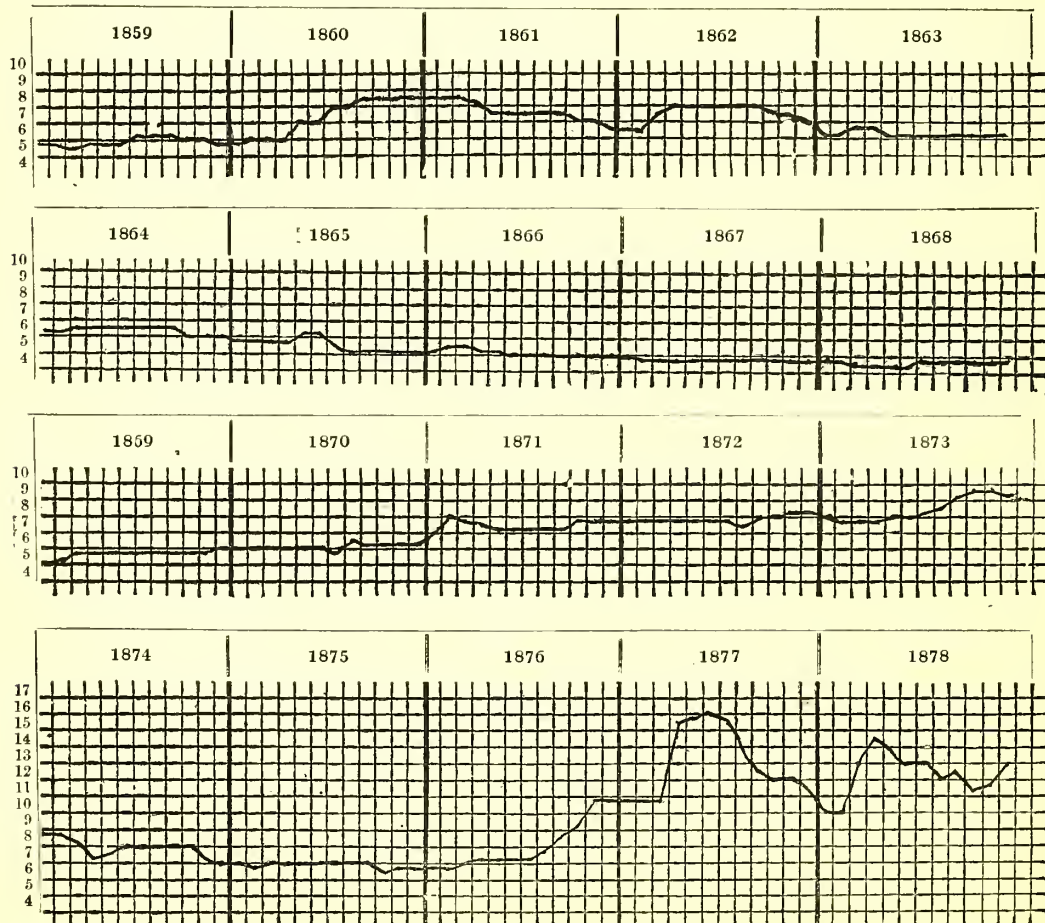
A specic jar, gilt labelled and painted inside, about 18 inches high (exclusive of cover), diameter 10 inches. Please send description and price, delivered to G. H. Bayley, Saltaire, Shipley, Yorkshire.

**ADDRESS WANTED.**

Address of Mr. Robert Cooper, publican, late of Guildford, tall, slight, sandy hair, florid complexion. Wheeler, Guildford.

## DIAGRAM SHOWING THE MONTHLY FLUCTUATIONS IN THE VALUE OF ENGLISH QUININE DURING THE PAST TWENTY YEARS.

THE marginal figures represent shillings, and parts of a shilling are shown by the position of the irregular line in the spaces.







THE national balance-sheet still continues to indicate an alarming shrinkage in the amount of business which the country transacts. The accounts for February show a falling off amounting to about 11 per cent. in the value of the imports, and of fully 14½ per cent. in the value of the exports compared with February, 1878. Last year the same month gave slight increases compared with the figures for February, 1877; but allowing for these, the falling-off is still of the most serious character. In round figures the value of the imports of the month is 3,500,000*l.*, and of the exports 2,200,000*l.*, less than in the corresponding month of 1878.

The production of chemicals has been considerably contracted, as a necessary result of the enormous losses which manufacturers have suffered during the past two years, and the consequence is that the spring demand which has now set in finds at last a market which responds to orders by a rise. Without desiring to see a course of high prices, it will be everyone's desire to know that the manufacture of chemicals is again remunerative, which in the alkali trade for some time past it certainly has not been. Soda crystals have advanced within the month from 6*s.* per ton to 70*s.*; bicarbonate and ash are also dearer in the same proportion, and bleaching powder is now firm at 6*s.*, an advance of 3*d.* Cream of tartar is firm, at an advance of 2*s.* per cwt.; citric and tartaric acids are dull, and offer temptations to buyers. There is much more likelihood of higher prices in the summer than of the reverse. Sulphate of quinine has been difficult to buy, and an advance of 6*d.* per ounce is to be reported since last month. Iodine continues at 1*s.* 1*d.*, with constant rumours of an impending advance. Quicksilver is now sold at 6*l.* 2*s.* 6*d.* per bottle, being 2*s.* 6*d.* less than last month.

There has been an appearance of somewhat more activity in the past few drug sales. Opium has been bought at progressive prices, an advance of 1*s.* to 2*s.* having been effected. This is due to speculation in regard to the next crop. Essences of lemon and bergamot are cheap, and American oil of peppermint is again lower. Oil of aniseed has lost a part of its late advance. Cardamoms are higher, especially for Malabar sorts. Considerable arrivals of camphor have brought that drug again to its normal figure. The latest prices for aloes show a recovery from recent depression for Cape and Socotrine. The attempt on the part of Spanish holders to keep up the high price to which they forced saffron at the beginning of this year has failed, and quotations are considerably reduced. Balsam copaiba is scarce. At last sales Para sold at 1*s.* 6*d.*, and Maranham was bought in at 1*s.* 8½*d.* Insect flowers, which are scarce, were held for 90*s.* Ergot of rye sold at 9½*d.* Ambergris realised 66*s.* for a fair sample. Areca nuts were bought at 40*s.* Norwegian cod liver oil was bought in at 3*s.* 6*d.* to 4*s.*

The latest bark sales were held on Tuesday last. East Indian cinchona, of which 200 packages were offered, sold readily, nearly all finding buyers at full rates. The highest price given for Crown (Officinalis) sorts was 7*s.* 7*d.*

Calisaya bark was less in demand, only 40 out of 130 packages being disposed of. Carthagenia made 2*s.* 6*d.* and 3*s.* 6*d.*; soft Columbian and New Granada sold, but not very freely, at all prices from 3½*d.* to 8*s.*; a few cases of Red made 7*s.* to 7*s.* 11*d.*

Indigo sales (Central American) took place on the 3-5th inst. The competition was spirited, especially for the finer sorts of Guatemala, and an advance of 4*d.* to 6*d.* was the general result. The best brands obtained from 5*s.* to 6*s.*, and 3*s.* 3*d.* was the lowest figure touched.

Gum Benjamin is reported scarce, and is firmly held, and an improvement has been effected in copal; myrrh still commands full rates; New Zealand cowrie is abundant and flat.

The oil market has been quiet. Olive is firmer abroad, but the demand continues languid here. Prices, however, are a shade stronger on this market.\* Linseed is firm at an advance, but rape oil is flat. American turpentine has shown a slightly downward tendency, but petroleum has been steady throughout the month at the exceedingly low price last quoted.

Annexed is our usual report of stocks and landings of certain drugs.

	Stocks		Imports		Deliveries	
	Feb. 28	Feb. 28	Feb. 28	Feb. 28	Feb. 28	Feb. 28
	1879	1878	1879	1878	1879	1878
Aloes.....cs	2,193	2,013	559	601	707	628
".....kegs	11	14	—	—	1	—
".....gourds	183	1,581	57	25	229	753
Aniseed, Star.....cmts	546	1,028	—	262	88	195
Arrowroot.....cks	11,566	11,482	131	87	2,498	2,316
".....bxs & tins	6,612	5,063	817	362	1,372	1,873
Balsam.....cks, &c.	44	138	—	—	60	50
Bark, Medicinal.....cks, &c.	566	710	219	302	355	761
".....srns, &c.	11,664	11,665	10,665	7,385	6,904	6,528
Borax.....pkgs	1,074	983	325	—	311	50
Bees' Wax.....bls & srns	705	495	12	1	289	60
".....cks & cs	2,477	1,447	1,047	266	312	190
".....cakes	27	54	34	150	54	104
Wax, Japan vegetable, pkgs	5,521	6,532	1,590	579	724	361
Camphor.....pkgs	2,226	4,069	2,882	226	1,428	632
Cardamoms.....cmts	251	473	145	41	128	139
Cocculus Indicus bgs, &c.	1,635	2,271	—	—	60	165
Colombo root.....pkgs	676	606	451	44	323	55
Cream of Tartar.....cks	81	99	26	41	28	54
Cubebs.....bgs	167	185	—	—	3	109
Dragonsblood.....cmts	83	123	2	6	36	21
Galls, E.I.....cks & cs	3,511	1,999	571	319	2,459	1,482
Mediterranean.....sks	828	987	53	441	131	68
Gum—						
Ammoniac.....pkgs	466	526	2	58	9	15
Animi & Copal.....	4,241	8,728	821	1,254	2,682	996
Arabic, Barbary.....	1,014	967	250	331	512	385
Turkey.....	470	741	282	390	271	118
E.I.....	1,575	2,843	264	1,407	481	736
Assafetida.....	261	245	3	—	50	57
Benjamin.....	1,238	1,020	281	263	190	207
Damar.....	852	762	232	22	825	353
Galbanum.....	19	31	—	—	—	4
Gamboge.....	140	128	51	7	78	45
Guaiaacum.....	29	38	35	3	21	2
Kino.....	11	10	—	1	—	3
Kowrie.....tns	835	965	392	279	367	265
Mastic.....pkgs	163	146	7	29	5	7
Myrrh, E.I.....	194	276	126	33	59	17
Olibanum.....	2,241	4,028	2,341	1,843	1,398	772
Sandarac.....	1,189	953	322	710	366	235
Senegal.....tns	22	15	5	5	—	—
Tragacanth.....pkgs	1,337	982	655	877	372	92
Ipecacuanha.....cks & bgs	201	230	64	11	99	93
Jalap.....bls	452	470	35	6	36	73
Nux Vomica.....pkgs	4,435	1,210	660	6	488	43
Oil—						
Castor.....cks	2	7	—	—	1	—
".....cs	6,897	2,226	6,364	477	3,869	1,831
Palm.....tns	1,168	401	413	167	199	382
Cocconut.....	3,153	2,547	2,370	1,162	824	1,373
Olive.....cks, &c.	387	852	525	516	627	961
Aniseed.....cs	48	210	71	40	65	67
Cassia.....	335	6	36	7	10	53
Opium.....cmts, &c.	1,050	2,224	167	—	183	—
Rhubarb.....cmts	1,266	566	229	134	266	286
Sarsaparilla.....bls	880	1,297	266	339	301	264
Senella.....bls, &c.	1,580	3,067	524	320	384	493
Shellac.....cb, &c.	41,241	40,735	3,157	6,334	5,269	5,271
Terra Japna, Gambier tns	3,439	2,138	1,833	2,463	1,441	2,104
Cutch.....	2,754	2,504	49	454	586	277
Turmeric.....	2,028	1,586	835	786	541	488

# Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mincing Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.	1879.		1878.	
	s. d.	s. d.	s. d.	s. d.
<b>ACIDS—</b>				
Acetic .....per lb.	0 2½	to 0 0	0 2½	to 0 0
Citric .....per lb.	1 11	.. 0 0	2 3	.. 2 3½
Hydrochloric.....per cwt.	5 0	.. 7 0	4 0	.. 7 0
Nitric .....per lb.	0 4½	.. 0 0	0 4½	.. 0 0
Oxalic .....per lb.	0 4½	.. 0 0	0 4½	.. 0 5
Sulphuric .....per lb.	0 0½	.. 0 1	0 0½	.. 0 1
Tartaric crystal, ..	1 4½	.. 1 4½	1 4½	.. 0 1
powdered, ..	1 4½	.. 1 4½	1 4½	.. 1 5
<b>ANTIMONY ore</b> .....per ton	240 0	.. 300 0	240 0	.. 300 0
crude .. per cwt.	36 0	.. 0 0	37 0	.. 0 0
star..... "	49 0	.. 54 0	50 0	.. 51 0
<b>ARSENIC, lump</b> .....per cwt.	25 0	.. 0 0	25 0	.. 0 0
powder..... "	9 0	.. 10 0	9 6	.. 10 6
<b>BRIMSTONE, rough</b> .....per ton	100 0	.. 102 6	110 0	.. 115 0
roll .. per cwt.	9 6	.. 10 3	9 6	.. 10 6
flour..... "	10 6	.. 13 0	11 6	.. 13 6
<b>IODINE, dry</b> .....per oz.	1 1	.. 0 0	0 10½	.. 0 0
<b>IVORY BLACK, dry</b> .....per cwt.	8 6	.. 0 0	8 6	.. 0 0
<b>MAGNESIA, calcined</b> .....per lb.	1 10	.. 0 0	1 10	.. 0 0
<b>MERCURY</b> .....per bottle	122 6	.. 0 0	142 6	.. 0 0
<b>MINIUM, red</b> .....per cwt.	16 6	.. 16 9	20 6	.. 0 0
orange ..	28 6	.. 0 0	33 0	.. 0 0
<b>PRECIPITATE, red</b> .. per lb.	3 3	.. 0 0	3 7	.. 0 0
white ..	3 2	.. 0 0	3 6	.. 0 0
<b>PRUSSIAN BLUE</b> .. "	0 0	.. 0 0	0 0	.. 0 0
<b>SALTS—</b>				
Alum .....per ton	122 6	.. 125 0	127 6	.. 135 0
powder..... "	140 0	.. 0 0	150 0	.. 0 0
<b>Ammonia:</b>				
Carbonate .....per lb.	0 6½	.. 0 6½	0 5½	.. 0 5½
Hydrochlorate, crude,				
white .....per ton	600 0	.. 720 0	580 0	.. 720 0
British (see Sal Am.)				
Sulphate.....per ton	370 0	.. 380 0	420 0	.. 430 0
Argol, Cape .....per cwt.	75 0	.. 82 0	75 0	.. 95 0
Red..... "	56 0	.. 70 0	67 0	.. 73 0
Oporto, red, ..	32 0	.. 33 0	32 6	.. 33 0
Sicily ..	60 0	.. 65 0	63 0	.. 65 0
Ashes (see Potash and Soda)				
Bleaching powd., per cwt.	6 0	.. 0 0	6 0	.. 0 0
Borax, crude..... "	27 0	.. 34 0	0 0	.. 0 0
British refined, ..	35 0	.. 36 0	36 0	.. 37 6
Calomel .....per lb.	2 11	.. 0 0	3 2	.. 0 0
<b>Copper:</b>				
Sulphate .....per cwt.	18 3	.. 18 6	20 0	.. 20 3
Copperas, green.....per ton	50 0	.. 55 0	55 0	.. 60 0
Corrosive Sublimate p. lb.	2 3	.. 0 0	2 7	.. 0 0
Cr. Tartar, French, p. cwt.	102 0	.. 0 0	100 0	.. 0 0
brown ..	80 0	.. 82 6	0 0	.. 0 0
Epsom Salts .....per cwt.	4 3	.. 6 0	4 3	.. 6 0
Glauber Salts ..... "	3 0	.. 4 6	3 0	.. 4 6
<b>Lime:</b>				
Acetate, white, per cwt.	11 0	.. 20 0	11 0	.. 20 0
Magnesia: Carbonate ..	47 6	.. 0 0	47 6	.. 0 0
<b>Potash:</b>				
Bichromate .....per lb.	0 5	.. 0 0	0 0	.. 0 0
Carbonate:				
Potashes, Canada, 1st				
sort .....per cwt.	26 0	.. 27 0	24 0	.. 0 0
Pearlashes, Canada, 1st				
sort .....per cwt.	35 6	.. 36 0	31 6	.. 32 0
Chlorate .....per lb.	0 6½	.. 0 6½	0 7½	.. 0 0
Permssiate ..... "	0 10½	.. 0 11	0 10½	.. 0 11
red ..	1 7½	.. 1 8	1 8	.. 1 9
Tartrate (see Argol and Cream of Tartar)				
<b>Potassium:</b>				
Ironide ..... "	1 8	.. 0 0	0 0	.. 0 0
Chloride .....per cwt.	6 6	.. 0 0	0 0	.. 0 0
Iodide .....per lb.	16 0	.. 0 0	13 0	.. 0 0
<b>Quinine:</b>				
Sulphate, British, in				
bottles .....per oz.	11 9	.. 0 0	0 0	.. 0 0
Sulphate, French ..	11 6	.. 11 9	11 0	.. 0 0
Sal Aetios .....per lb.	0 6	.. 0 6½	0 7	.. 0 0
Sal Ammoniac, Brit. cwt.	41 0	.. 45 0	42 0	.. 43 0
<b>Saltpetre:</b>				
Bengal, 6 per cent. or				
under .....per cwt.	19 0	.. 19 3	22 0	.. 23 6
Bengal, over 6 per cent.				
per cwt.	18 0	.. 18 9	21 6	.. 21 9
British, refined ..	23 0	.. 24 6	25 6	.. 28 0
Soda: Bicarbonate, p. cwt.	9 0	.. 9 9	9 6	.. 9 9
Carbonate:				
Soda Ash .....per deg.	0 1½	.. 0 1½	0 1½	.. 0 0
Soda Crystals per ton	70 0	.. 0 0	72 6	.. 0 0
Hyposulphite, per cwt.	0 0	.. 0 0	0 0	.. 0 0
Nitrate ..... "	13 3	.. 13 6	15 6	.. 15 9
<b>SUGAR OF LEAD, White</b> cwt.	38 0	.. 0 0	37 0	.. 0 0
Brown, cwt.	26 6	.. 0 0	26 6	.. 0 0
<b>SULPHUR</b> (see Brimstone)				

DRUGS.	1879.		1878.	
	s. d.	s. d.	s. d.	s. d.
VERDIGRIS .....per lb.	0 0	to 0 0	0 0	to 1 5
VERMILION, English	2 3	.. 0 0	2 8	.. 0 0
China ..	2 3	.. 0 0	2 0	.. 0 0
<b>ALOE, Hepatic</b> .....per cwt.	70 0	.. 170 0	80 0	.. 180 0
Socotrine ..	100 0	.. 210 0	85 0	.. 200 0
Cape, good..... "	42 0	.. 46 0	38 0	.. 40 0
Inferior ..	38 0	.. 41 0	30 0	.. 37 0
Barbadoes ..	40 0	.. 225 0	40 0	.. 160 0
AMBERGRIS, grey.....oz.	53 0	.. 70 0	80 0	.. 90 0
<b>BALSAM—</b>				
Canada.....per lb.	0 0	.. 0 0	0 9	.. 1 6
Capivi ..	1 4	.. 1 7	1 6	.. 1 6½
Peru ..	3 9	.. 4 0	4 3	.. 0 0
Tolu ..	2 5	.. 0 0	4 0	.. 4 3
<b>BARKS—</b>				
Canella alba.....per cwt.	20 0	.. 28 0	18 0	.. 22 0
Cascarilla ..	24 0	.. 36 0	15 0	.. 23 0
Peru, crown & grey per lb.	1 2	.. 2 3	1 0	.. 2 9
Calisaya, flat ..	2 0	.. 4 6	3 6	.. 4 6
quill ..	4 0	.. 7 0	4 6	.. 5 6
Carthagea ..	1 4	.. 4 2	1 8	.. 2 4
Columbian ..	1 0	.. 6 6	2 0	.. 4 6
E. I. ....	1 3	.. 3 0	1 2	.. 2 8
good & fine ..	3 6	.. 9 0	3 0	.. 7 0
Pitayo ..	1 6	.. 3 3	0 6	.. 1 6
Red ..	6 0	.. 8 6	3 3	.. 5 0
Buchu Leaves..... "	0 3	.. 1 1	0 2½	.. 0 3
CAMPOR, China ..per cwt.	75 0	.. 76 0	80 0	.. 0 0
Japan ..	75 0	.. 77 6	82 6	.. 0 0
Refin. Eng. per lb.	1 2	.. 0 0	1 1½	.. 0 0
<b>CANTHARIDES.....</b>	1 6	.. 4 3	2 0	.. 5 0
CHAMOMILE FLOWERS p. cwt.	0 0	.. 0 0	50 0	.. 200 0
CASTOREUM .....per lb.	0 0	.. 0 0	9 0	.. 30 0
DRAGON'S BLOOD, l. p. cwt.	100 0	.. 260 0	85 0	.. 280 0
<b>FRUITS AND SEEDS (see also Seeds and Spices).</b>				
Anise, China Star per cwt.	75 0	.. 77 6	75 0	.. 90 0
Spanish, &c. ..	35 0	.. 42 6	45 0	.. 50 0
Beans, Tonquin.....per lb.	4 6	.. 6 0	1 9	.. 5 0
Cardamoms, Malabar				
good ..	7 6	.. 9 0	4 9	.. 6 3
inferior..... "	3 0	.. 7 10	1 9	.. 4 5
Aleppy ..	2 0	.. 8 0	2 0	.. 6 0
Madras..... "	2 3	.. 6 0	2 2	.. 3 9
Ceylon ..	2 2	.. 4 2	3 6	.. 4 9
Cassia Fistula.....per cwt.	55 0	.. 57 0	81 0	.. 89 0
Castor Seeds ..	0 0	.. 0 0	0 0	.. 0 0
Cocculus Indians ..	7 3	.. 9 0	8 3	.. 10 6
Colocynth, apple ..per lb.	1 3	.. 1 10	1 0	.. 1 9
Croton Seeds .....per cwt.	28 0	.. 30 0	26 0	.. 35 0
Cubobs ..	55 0	.. 0 0	32 0	.. 35 0
Cummin ..	36 0	.. 50 0	20 0	.. 35 0
Dividivi ..	12 0	.. 15 6	12 0	.. 16 0
Penugreek ..	5 3	.. 10 0	6 0	.. 12 0
Guinea Grains ..	29 0	.. 30 0	28 0	.. 0 0
Juniper Berries ..	0 0	.. 0 0	6 6	.. 9 0
Nux Vomica ..	7 6	.. 10 6	9 0	.. 14 0
Tamarinds, East India, ..	12 0	.. 19 0	12 0	.. 19 0
West India ..	13 0	.. 26 0	21 0	.. 27 6
Vanilla, large ....per lb.	19 0	.. 25 0	20 0	.. 27 0
inferior ..	7 0	.. 18 6	15 0	.. 19 0
<b>GINGER, Preserved</b> per lb.	0 4½	.. 0 6	0 4½	.. 0 7
<b>HONEY, Chilli</b> .....per cwt.	30 0	.. 36 0	37 0	.. 50 0
Jamaica ..	35 0	.. 41 0	38 0	.. 43 0
Australian ..	0 0	.. 0 0	0 0	.. 0 0
<b>IPECACUANHA</b> .....per lb.	4 2	.. 4 7	4 9	.. 5 6
<b>ISINGLASS, Brazil.</b>				
Tongue sort ..	3 6	.. 5 6	3 5	.. 5 3
East India ..	1 0	.. 4 10	2 0	.. 5 1
West India ..	3 7	.. 4 6	4 0	.. 4 4
Russ, long staple	6 0	.. 10 6	8 0	.. 15 0
inferior ..	0 0	.. 0 0	0 0	.. 0 0
Simovia ..	1 6	.. 2 6	1 6	.. 3 0
<b>JALAP, good</b> ..... "	0 11	.. 1 2	0 8	.. 1 0
infer. & stems ..	0 9½	.. 0 10½	0 7	.. 0 7½
<b>LEMON JUICE</b> .....per degree	0 0½	.. 0 1½	0 1	.. 0 1½
<b>LIME JUICE</b> .....per gall.	1 3	.. 1 8	0 4½	.. 0 5½
<b>LIQUORICE, Spanish</b> per cwt.	0 0	.. 0 0	34 0	.. 39 0
Liquorice Root ..	0 0	.. 0 0	0 0	.. 0 0
<b>MANNA, flaky</b> .....per lb.	0 0	.. 0 0	3 6	.. 4 0
small ..	0 0	.. 0 0	1 4	.. 1 6
<b>MUSK, Pod.</b> .....per oz.	20 6	.. 60 0	20 0	.. 52 6
Grain..... "	0 0	.. 0 0	25 0	.. 60 0
<b>OILS (see also separate list)</b>				
Almond, expressed per lb.	2 0	.. 0 0	1 9	.. 0 0
Castor, 1st pale.... "	0 4½	.. 0 5½	0 5½	.. 0 5½
second ..	0 4½	.. 0 4½	0 4½	.. 0 5½
Cod Liver .....per gall.	2 6	.. 4 6	4 0	.. 5 0
Croton .....per oz.	0 2½	.. 0 3	0 2½	.. 0 3½
<b>Essential Oils:</b>				
Almond .....per lb.	20 0	.. 0 0	25 0	.. 0 0
Anise-seed ..	7 3	.. 7 6	6 6	.. 6 9
Bay ..	0 0	.. 0 0	65 0	.. 79 0
Bergamot .....per lb.	6 0	.. 9 0	10 0	.. 15 0
Cajeput.....per bottle	3 6	.. 4 0	3 0	.. 3 6
Caraway.....per lb.	0 0	.. 0 0	9 0	.. 9 3
Cassia ..	2 10	.. 2 11	3 0	.. 0 0
Cinnamon.....per oz.	3 9	.. 4 6	4 6	.. 5 6
Cinnamon-leaf ..	0 1½	.. 0 0	0 2½	.. 0 0
Citronelle ..	0 3	.. 0 3½	0 2½	.. 0 2½
Clove ..	9 0	.. 0 0	8 0	.. 0 0
Ginger Grass ..	0 2½	.. 0 3	0 2½	.. 0 3
Lavender .....per lb.	0 5	.. 0 0	1 8	.. 7 6
Lemon..... "	3 0	.. 5 6	5 0	.. 8 6
Lemongrass .....per oz.	0 2½	.. 0 0	0 2½	.. 0 3



1879.				1878.				1879.				1878.			
Essential Oils, continued:—		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	Oils, continued:—		£ s.	£ s.	£ s.	£ s.		
Neroli .....	per oz.	0 0	to 0 0	3 4	to 6 6	0 4	to 0 4½	WHALE, South Sea, pale, per tun	27 0	to 28 0	33 0	to 0 0	£ s.		
Nutmeg .....	per lb.	0 3	.. 0 3½	0 4	.. 0 4½	0 3	.. 0 3½	yellow „	25 0	.. 26 0	32 0	.. 0 0	£ s.		
Orange .....	per lb.	0 3	.. 7 0	4 3	.. 7 0	0 4	.. 0 4½	brown „	21 0	.. 23 0	23 0	.. 29 0	£ s.		
Otto of Roses .....	per oz.	18 0	.. 30 0	35 0	.. 44 0	1 6	.. 3 0	East India, Fish „	0 0	.. 0 0	25 10	.. 0 0	£ s.		
Patchouli .....	per lb.	1 6	.. 3 0	1 6	.. 3 0			OLIVE, Galipoli .....	0 0	.. 0 0	0 0	.. 0 0	£ s.		
Peppermint:								Gioja .....	0 0	.. 0 0	0 0	.. 0 0	£ s.		
American .....	per lb.	7 6	.. 9 6	10 9	.. 12 6			Levant .....	43 10	.. 44 0	51 0	.. 0 0	£ s.		
English .....	per lb.	21 0	.. 23 0	24 0	.. 25 0			Mogador .....	0 0	.. 0 0	50 0	.. 0 0	£ s.		
Rosemary .....	per lb.	0 0	.. 0 0	2 0	.. 2 6			Spanish .....	46 0	.. 0 0	51 0	.. 0 0	£ s.		
Sassafras .....	per lb.	2 0	.. 2 3	2 3	.. 2 6			Sicily .....	44 10	.. 0 0	0 0	.. 0 0	£ s.		
Spearmint .....	per lb.	8 0	.. 9 0	12 0	.. 15 0			COCOANUT, Coch. ....	44 0	.. 47 0	46 10	.. 47 0	£ s.		
Thyme .....	per lb.	0 0	.. 0 0	0 0	.. 0 0			Ceylon .....	36 0	.. 0 0	39 5	.. 0 0	£ s.		
Mace, expressed .....	per oz.	0 5	.. 0 0	0 6	.. 0 10			Mauritius .....	36 0	.. 36 10	39 0	.. 49 0	£ s.		
OPIMUM, Turkey .....	per lb.	18 0	.. 21 0	17 0	.. 17 6			GROUND NUT AND GINGELLY:							
inferior .....	per lb.	10 0	.. 16 6	10 0	.. 12 0			Bombay .....	0 0	.. 0 0	0 0	.. 0 0			
QUASSIA (bitter wood) per ton		100 0	.. 130 0	100 0	.. 130 0			Madras .....	0 0	.. 0 0	0 0	.. 0 0			
RHUBARB, China, good and fine	per lb.	1 6	.. 3 8	2 6	.. 3 5			PALM, fine .....	35 10	.. 0 0	40 0	.. 49 10			
Mid. to ord. ....	per lb.	0 6	.. 1 6	0 4	.. 1 8			LINSEED .....	25 17/6	.. 0 0	25 10	.. 0 0			
Dutch Trimmed .....	per lb.	0 0	.. 0 0	0 0	.. 0 0			RAPESEED, English, pale ..	31 15	.. 32 0	34 10	.. 0 0			
ROOTS—Calumba .....	per cwt.	30 0	.. 55 0	25 0	.. 50 0			brown .....	29 15	.. 31 0	32 10	.. 0 0			
China .....	per lb.	28 0	.. 30 0	25 0	.. 30 0			Foreign, pale ..	0 0	.. 0 0	35 10	.. 0 0			
Chiretta .....	per lb.	0 2½	.. 0 3½	0 3	.. 0 4			brown .....	0 0	.. 0 0	0 0	.. 0 0			
Galangal .....	per cwt.	21 0	.. 22 6	21 0	.. 21 6			COTTONSEED .....	28 0	.. 0 0	31 10	.. 0 0			
Gentian .....	per lb.	0 0	.. 0 0	19 0	.. 21 0			LARD .....	33 0	.. 0 0	46 0	.. 0 0			
Hellebore .....	per lb.	0 0	.. 0 0	0 0	.. 0 0			TALLOW .....	30 0	.. 35 0	43 0	.. 44 0			
Orris .....	per lb.	20 0	.. 45 0	55 0	.. 65 0			TURPENTINE, American, cks.	22 0	.. 22 1½	25 6	.. 0 0			
Pellitory .....	per lb.	0 0	.. 0 0	70 0	.. 76 0			French .....	0 0	.. 0 0	0 0	.. 0 0			
Pink .....	per lb.	0 0	.. 0 0	0 0	.. 0 0			PETROLEUM, Crude .....	0 0	.. 0 0	0 0	.. 0 0			
Rhatany .....	per lb.	0 2	.. 0 5	0 4	.. 0 8			refined, per gall.	0 7½	.. 0 7½	0 19	.. 0 0			
Seneka .....	per lb.	2 4	.. 2 6	3 6	.. 3 9			Spirit .....	0 8	.. 0 9	0 8	.. 0 8½			
Snake .....	per lb.	0 0	.. 0 0	0 10	.. 1 0			SEEDS.							
SAFFRON, Spanish ..	per cwt.	20 0	.. 40 0	20 0	.. 32 0			CANARY .....	46 0	.. 56 0	44 0	.. 50 0			
SALEP .....	per cwt.	120 0	.. 140 0	240 0	.. 300 0			CARAWAY, English per cwt.	0 0	.. 0 0	43 0	.. 45 0			
SARSAPARILLA, Lima per lb.		0 4	.. 0 5½	0 0	.. 0 0			German, &c. ....	0 0	.. 0 0	48 0	.. 49 0			
Guayaquil .....	per lb.	1 1	.. 1 4	2 2	.. 2 6			CORIANDER .....	15 0	.. 20 0	18 0	.. 23 0			
Honduras .....	per lb.	1 0	.. 1 4	0 11	.. 1 6			HEMP .....	39 0	.. 41 0	0 0	.. 0 0			
Jamaica .....	per lb.	1 2	.. 1 7	1 2	.. 2 6			LINSEED English .....	60 0	.. 63 0	0 0	.. 0 0			
SASSAFRAS .....	per cwt.	0 0	.. 0 0	9 0	.. 11 0			Black Sea & Azof ..	49 0	.. 0 0	52 0	.. 0 0			
SCAMMONY, Virgin ..	per lb.	23 0	.. 25 0	0 0	.. 0 0			Calcutta .....	48 6	.. 0 0	50 0	.. 0 0			
second & ordinary ..	per lb.	8 0	.. 20 0	0 0	.. 0 0			Bombay .....	49 0	.. 0 0	51 0	.. 52 0			
SENNA, Bombay .....	per lb.	0 0½	.. 0 2½	0 0	.. 0 0			St. Petersburg ..	48 0	.. 0 0	50 0	.. 0 0			
Tinnivelly .....	per lb.	0 1½	.. 1 4	0 1	.. 1 6			Mustard, brown, per bshl.	0 0	.. 0 0	0 0	.. 0 0			
Alexandria .....	per lb.	0 4	.. 1 4	0 5	.. 1 6			white .....	9 0	.. 12 6	13 0	.. 16 0			
SPERMACEETI, refined ..	per lb.	1 4	.. 0 0	1 4	.. 0 0			POPPY, East India, per qr.	50 0	.. 51 0	49 0	.. 0 0			
American .....	per lb.	1 1	.. 1 3	1 3	.. 0 0			SPICES.							
SQUILLS .....	per lb.	0 1	.. 0 3	0 2½	.. 0 4			CASSIA LIGNEA .....	36 0	.. 45 0	44 0	.. 50 0			
UMS.		£ s.	£ s.	£ s.	£ s.			Vera .....	22 0	.. 36 0	22 0	.. 45 0			
AMMONIAC drop .....	per cwt.	2 0	.. 2 2	1 18	.. 2 0			Buds .....	55 0	.. 56 0	70 0	.. 73 0			
lump .....	per cwt.	0 15	.. 1 18	0 15	.. 1 15			CINNAMON, Ceylon:							
ANIMI, fine washed ..	per lb.	13 15	.. 15 0	13 0	.. 14 10			1st quality .....	1 2	.. 3 3	2 2	.. 3 6			
bold scraped .....	per lb.	12 0	.. 13 10	10 10	.. 12 10			2nd do. ....	1 0	.. 2 4	2 0	.. 2 9			
sorts .....	per lb.	9 2/6	.. 11 17/6	6 0	.. 9 10			3rd do. ....	1 11	.. 1 8	1 9	.. 2 3			
dark .....	per lb.	5 0	.. 8 10	5 0	.. 6 0			Tellicherry .....	1 6	.. 2 4	2 4	.. 2 7			
ARABIC, E.I., fine	per lb.	2 15	.. 3 5	2 18	.. 3 14			Caips .....	0 2½	.. 0 5	0 3½	.. 0 6½			
pale picked .....	per lb.	2 2	.. 2 14	2 5	.. 2 17			CLOVES, Penang .....	1 7	.. 1 9	1 11	.. 2 2			
sorts, mid. to fin. ....	per lb.	1 2	.. 2 0	1 15	.. 2 0			Amboyua .....	1 4	.. 1 6	1 4	.. 1 7			
garblings .....	per lb.	6 5	.. 9 10	6 0	.. 9 10			Zanzibar .....	1 4	.. 1 4½	1 2	.. 1 3			
TURKEY, pick. gd. to fin.	per lb.	3 5	.. 5 0	3 0	.. 5 15			GINGER, Jam., fine per cwt.	90 0	.. 200 0	91 0	.. 202 6			
second & inf. ....	per lb.	2 5	.. 2 10	2 10	.. 3 16			Ord. to good .....	52 0	.. 80 0	53 0	.. 81 0			
Gedda .....	per lb.	1 15	.. 1 14	1 14	.. 1 19			African .....	21 0	.. 22 0	24 0	.. 0 0			
BARBARY, brown .....	per lb.	2 16	.. 3 0	2 7	.. 2 12			Bengal .....	17 6	.. 18 0	21 6	.. 22 6			
AUSTRALIAN .....	per lb.	1 15	.. 2 10	1 19	.. 2 12			Malabar .....	0 0	.. 0 0	26 0	.. 28 0			
ASSAFETIDA, cm. to fin	per lb.	1 8	.. 3 0	0 15	.. 2 0			Cochin .....	45 0	.. 125 0	50 0	.. 115 0			
BENJAMIN, 1st & 2nd	per lb.	21 0	.. 70 0	45 0	.. 60 0			PEPPER, Bk., Malabar, per lb.	0 3½	.. 0 4½	0 4½	.. 0 5½			
Sumatra 1st & 2nd	per lb.	6 5	.. 16 10	5 17/6	.. 14 0			Singapore .....	0 3½	.. 0 3½	0 3½	.. 0 3½			
3rd .....	per lb.	2 10	.. 5 12/6	2 4	.. 5 10			White Tellicherry ..	0 0	.. 0 0	0 10	.. 1 4			
COPAL, Angola red ..	per lb.	0 0	.. 0 0	6 0	.. 6 15			Cayenne .....	1 4	.. 3 1	1 4	.. 3 0			
Benguella .....	per lb.	0 0	.. 0 0	4 0	.. 5 0			MACE, 1st quality ..	0 19	.. 2 6	2 2	.. 3 3			
Sierra Leone, per lb.		0 7½	.. 0 10	0 6½	.. 0 9			2nd and inferior ..	0 11	.. 1 8	1 0	.. 2 1			
Manilla .....	per cwt.	16 0	.. 24 0	18 0	.. 26 0			NUTMEGS, 78 to 60 lb.	3 4	.. 5 0	3 11	.. 5 0			
DAMMAR, pale .....	per cwt.	72 0	.. 72 6	75 0	.. 80 0			90 to 80 ..	2 11	.. 3 3	3 0	.. 3 10			
Singapore .....	per cwt.	55 0	.. 65 0	72 0	.. 78 0			132 to 95 ..	1 10	.. 2 10	0 10	.. 2 11			
EUPHORBUM .....	per lb.	0 0	.. 0 0	9 0	.. 15 0			PIMENTA .....	0 4½	.. 0 5	0 4½	.. 0 4½			
GALBANUM .....	per lb.	0 0	.. 0 0	0 9	.. 1 3			VARIOUS PRODUCTS.							
GAMBOGE, pkcd. pipe per cwt.		200 0	.. 250 0	190 0	.. 260 0			COCHINEAL—							
GUALACUM .....	per lb.	0 7	.. 1 6	1 8	.. 2 5			Honduras, black .....	2 0	.. 2 5	2 2	.. 2 6			
KINO .....	per cwt.	65 0	.. 100 0	81 0	.. 86 0			silver .....	2 0	.. 2 3	1 11	.. 2 1			
KOWRIE, sorts .....	per cwt.	20 0	.. 40 0	20 0	.. 43 0			pasty .....	0 0	.. 0 0	1 10	.. 0 0			
selected .....	per cwt.	122 6	.. 177 6	110 0	.. 170 0			Mexican, black .....	2 1	.. 2 2	2 0	.. 2 1			
MASTIC, picked .....	per lb.	2 6	.. 3 0	4 0	.. 5 0			silver .....	2 1	.. 0 0	1 11	.. 2 0			
MYRRH, gd. & fine per cwt.		150 0	.. 200 0	152 6	.. 200 0			Tenerife, black .....	2 1	.. 2 11	2 2	.. 2 10			
ord. to fair .....	per cwt.	65 0	.. 142 6	80 0	.. 130 0			silver .....	2 1	.. 2 2	1 11	.. 2 1			
OLIBANUM, p. drop ..	per lb.	59 0	.. 66 0	46 0	.. 48 0			SOAP, Castile .....	25 0	.. 43 0	33 0	.. 34 10			
amber & ylw. ....	per lb.	50 0	.. 58 0	40 0	.. 43 0			SOY, China .....	1 11	.. 2 0	2 6	.. 0 0			
garblings .....	per lb.	18 0	.. 35 0	14 0	.. 29 0			TERRA JAPONICA—							
SENEGAL .....	per lb.	60 0	.. 0 0	60 0	.. 65 0			Gambier .....	17 6	.. 17 9	17 0	.. 30 6			
SANDARAC .....	per lb.	60 0	.. 100 0	82 0	.. 100 0			Free cubes .....	24 0	.. 27 0	27 0	.. 23 0			
SHELLAC, Orange ..	per lb.	73 0	.. 88 0	70 0	.. 85 0	</									



O star-eyed Science! hast thou wandered there  
To waft us back the answer of despair?—Campbell.

"Vigil" says he sent to a "pharmaceutical" chemist in a certain market town, within a hundred miles of London, for some potass. permang. Reply—"Never heard of it." He applied to another "pharmaceutical," in the same town, for some red argol. Neither principal nor assistant had ever heard of it before.

**Finder.**—For information respecting matriculation and degrees at the London and Edinburgh Universities you had better apply to the Registrars.

**W. S.**—You will find a number of formulæ for ointment for scab in sheep in Beasley's "Druggists' Receipt Book" (6s.). These are generally made with strong mercurial ointment, 1 part; Venice turpentine and oil of turpentine, of each  $\frac{1}{2}$  part; and lard, 4 or 5 parts. Or, an ointment without mercury may be made of, lard, 1 lb.; oil of turpentine, 4 oz.; flower of sulphur, 6 oz.

**H. T.**—"If I mix and sell a mixture for bronchitis, and also one for whooping cough, advertising the same, what law affects me?" You must put medicine stamps on the bottles, and they can only be sold by persons having a patent medicine licence.—"If I place on the labels a particular print, representing a trade-mark, what have I to do, and with whom?" If you think it worth while you can apply for registration of your trade-mark, but you must have some design, not mere words. The registration of an unopposed trade-mark costs 2*l.*, and there are some extra expenses for advertising it. Application must be made to the Registrar, Quality Court, Chancery Lane. Of course it is quite optional with you whether you register your trade-mark or not, and until you think it is of sufficient value to be imitated you would not be wise to go to the expense.

**G. W. P., and other Correspondents.**—**The Dentists Act and Jury Service.**—We have to apologise for an error on page 47 of our last issue. Every person registered under the Act may be exempt from all jury, corporate, parochial, or township service if he so desire it. G. W. P. sends us a cutting from a certain medical journal, whose stupid whinnings respecting the admission of "prescribing druggists" to the register are hardly worthy of its own columns, and certainly do not merit quotation in ours.

59/42. **Archimedes.**—**The Metric System.**—To convert grains or minims into centigrammes, multiply them by 6; to convert drachms into grammes, multiply them by 4; to convert ounces into grammes, multiply them by 32. For instance:

Quinine sulphatis .. .. .	grs. xxx =	1 80
Acidi sulphurici diluti .. .. .	3 iss =	6 00
Ferri sulphatis .. .. .	3 ss =	2 00
Aque fontane .. .. .	3 iij =	96 00

55/42. **J. S.**—**Boric Acid Ointment.**—This ointment is used in University College Hospital, as an application for burns, and is made according to a formula of Mr. Godlee, as follows:—

	Parts
Boric acid in fine powder .. .. .	1
White wax .. .. .	1
Paraffin .. .. .	2
Almond oil .. .. .	2

Melt the wax, paraffin, and oil, with a gentle heat; then add the acid and continue stirring until it remains of uniform consistence. Before using, it should be reduced to a soft mass by rubbing it in a cold mortar.—*Journal of Chemistry.*

19/46. **Beeswax** asks: "What is meant by knowing a person, as applied to Section 17 of the Sale of Poisons Act? I have known a person for months or years merely through his coming into the shop, but have not known his name or address. At last he asks for a poison under the first part of Schedule A. Can I say that I know him legally, and am therefore entitled to supply him with the poison? This, of course, also applies to the witness."—Knowing a person from his coming in the shop would, we think, be hardly sufficient. But if you know a man to be ostler at an inn, for instance, though you may not have known his name previously, you would, in our opinion, know him well enough to sell him the poison.

16/38. **Amyas.**—The adhesive surface of **Corn Plaisters**, as usually made, is no doubt a gelatinous solution, but we are not able to tell you exactly how this is applied to the felt without being absorbed by the latter. Perhaps some one will help with this information.

20/242. **F. W. H.**—**To bind Animal Charcoal** into blocks you will have to use starch or treacle. But if you want to use the blocks for filtering purposes your difficulties will only then begin, as you will have to carbonise the binding substance without disintegrating the block. This you can only do by furnaces and special apparatus, the details of the process being familiar only to those in the trade.

23/284. **Nit Desperandum.**—You will find an article on **Miscible Copaliba**, by Mr. T. B. Groves, on p. 377 of our last volume (September). It is made by mixing Maranham copaliba with about one-sixth of its bulk of a saturated solution of carbonate of potassium, and letting the mixture stand for a few days.

**Mildewed Plate Glass.**—A correspondent, referring to the query in our last number thus headed, says:—This silvered glass is made under what is termed the new process—*nitrate of silver*, and is very liable to "go off," unless manufactured by very good makers. J. Pratt & Co., 1 Wellington Street, Blackfriars Road, S.E., do large quantities of silvered glass under new process.

21/17. **V. C.** wants a good form for ductile physic mass. We published one, given by Messrs. Elliman & Co., of Slough, on page 19 of our last volume (January).

69/31 and 18/56. **Weights and Measures Act, 1879.**—*In Doubt.*—We forestalled your question in an editorial article published on December 14, page 542. If you will look to that article you will find it definitely stated that "16 oz. of cod liver oil must not be referred to as a pint."

**Kappa.**—We have already devoted a great deal of space to the explanation of the Weights and Measures Act. A chemist may keep any weights or measures he chooses, but all that bear the names of the Imperial weights and measures must be just as heavy and capacious as those weights and measures. A dram of quinine is 60 grains, an ounce of quinine may be 480 or 437½ grains, but a pound of soap must be 16 oz. avoirdupois. Drugs may be sold retail by apothecary's weight; all other goods must be vended by avoirdupois weight. A dram of aconitine from the wholesale house must be the sixteenth part of the avoirdupois ounce, so it is advisable to order 60 grains, and not a dram. You should request your local inspector to stamp officially all the weights and measures you possess, from the cwt. to the  $\frac{1}{2}$  grain, and from the gallon to the minim measure, glass as well as metal. He will probably refuse, but get him to put his refusal in writing. This will probably protect you in any legal proceedings. When he visits your premises, show him every weight and every measure you have. You are bound to do this, and he is bound to take cognisance of all you show him. At the same time he has at present no means of verifying apothecaries' weights or divided glass measures. It is plainly the duty of the chemist to submit all his weights and measures to the inspector, and having done this his responsibility ceases.

207/0. **Dynamo Electric Machines.**—A. F. K. will probably find what he wants in "Jenkins' Electricity and Magnetism," published, 3*s.* 6*d.* by Longmans, Green & Co.

19/30. **Edwin Nuthall.**—We cannot at present lay our hands on the reference, but will make further inquiries.

18/40. **Mag. Sulph.**—How to disguise the taste of Epsom salts? We imagine the taste of Epsom salts will assert itself whatever you combine with it. Paris, in his "Pharmacologia," states that the addition of magnesia will to some extent disguise the flavour.

**R. R.** (15/35) and **L. L. O.** (19/45) want a treatise on **Dispensing**. We are told that the "Dispenser's Vade Mecum," which we remember as a handy little work some 10 or 15 years ago, is out of print. Perhaps a copy might be got by advertising in our Exchange Column. Proctor's "Practical Pharmacy" is to a great extent a manual of dispensing, and Parrish's "Practical Pharmacy" also contains much useful matter. But there is no doubt room for a small volume in which the hints scattered through numberless journals were collected.

19/45. **L. L. O.**—You will find much information as to the examinations for the Apothecaries' Company in any of our September numbers; or you can get a synopsis by applying to the Clerk to the Apothecaries' Company, Blackfriars, London.

1/39. **T. Baker** (Maryborough, Queensland).—We are obliged for sample of arrowroot lately received, and will examine and report upon it, probably next month.

278/18. **Black Eyes.**—*Curfar.*—It is not clear from your letter whether you wish to blacken eyes or to obliterate the black. The "artists in black eyes," who undertake to obliterate the traces of a fray, use, we believe, only oil or water colours. The Kohl or surmei used by Oriental ladies does not contain antimony, as is generally asserted, but is a sort of lampblack. It is applied to the edges of the eyelashes to make the eyes look larger.

**FRAUDS ON ADVERTISERS.**—At the Central Criminal Court, on March 4, a young man named Wm. Clark, alias Eugene Carl Müller, pleaded guilty to the charge of having obtained articles advertised in the *Exchange and Mart*, paying for them by written cheques. The Common Serjeant, who tried the case, said if such conduct as that of which the prisoner had been guilty were allowed, all confidence in newspaper advertisements would very soon be destroyed. The case demanded the heaviest sentence the law would allow, and the prisoner must be kept in penal servitude for seven years.



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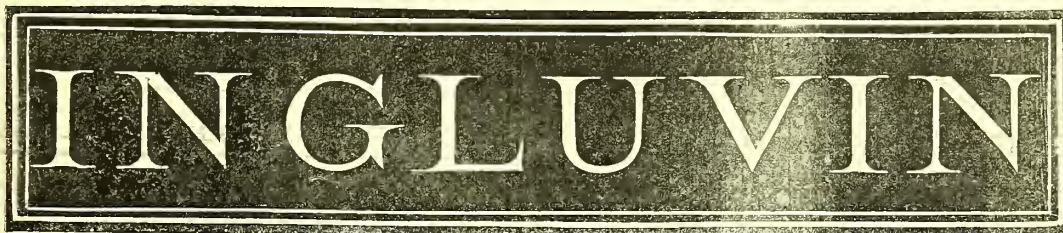
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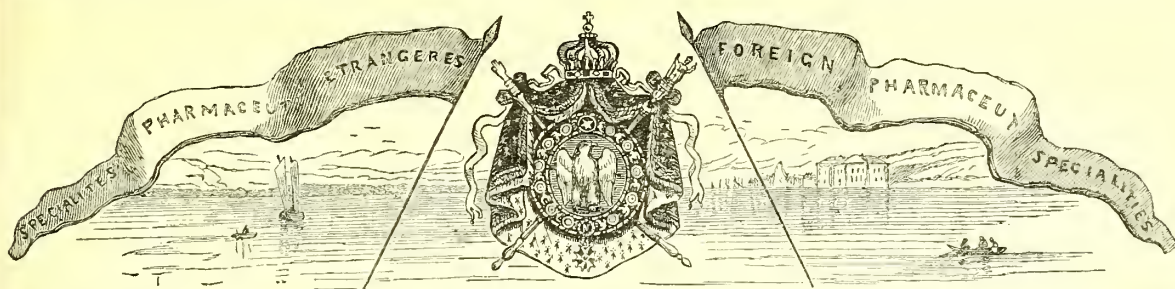
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3/6..Aubergier's Syrup	27/	4/6..Chassaing's Wine	36/	11/..Laville's Gout Tincture	84/	4/6..Raeahout	33/
1/9.. " Pâté	13/	2/9.. " Pills	25/	11/.. " Pills	84/	5/0..Reynal's Bougies	42/
6/6..Bay Rum	54/	4/6..Clin's Bromide Campb. Caps	45/	2/3..Papier Fayard	13/	3/6..Ricord's Injection	24/
3/6.. Ditto	27/	4/6.. " Dragées	45/	1/1 1/2 Ditto	6/6	4/6.. " Capsules	34/
2/6..Belloc's Charecoal	16/	2/9..Dusart's Syrups	27/	4/6..Papier Fruneau	27/	8/0.. " Syrup	72/
1/9.. " Lozenges	13/	4/6.. " Wines	36/	2/3.. Ditto	15/	2/0..Star Paper	15/
4/6..Blaneard's Pills	30/	5/0..Eau Botot	42/	1/9..Pâté Aubergier	13/	2/6..Tamar Indien	21/
2/9.. Ditto	18/	3/0.. Ditto	26/	1/9.. " de Georgé	13/	2/9..Vallet's Pills	24/
4/6..Brou's Injection	26/	2/3..Espie's Cigarettes	15/	1/1 1/2 " Ditto	8/6	1/6.. Ditto	13/
4/6..Bugeaud's Wine	36/	2/9..Flon's Syrup	23/	1/9.. " de Berthé	15/	4/6..Veloutine (White and Rose)	39/
4/6..Bully's Vinegar	33/	2/6..Gayetty's Paper	18/	1/9.. " de Nafé	13/	3/6.. Ditto ditto	30/
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In consequence hereof we hereby give notice that proceedings will forthwith be taken by us against any person found to be infringing our said patent rights, whether by making or by purchasing, selling or importing, or being concerned in importing, or in any way using within the United Kingdom Malachite Green other than that manufactured or imported by us or by our licensees, Messrs. Meister, Lucius & Brünig, under our or their respective trade marks and labels. A reward will be given by us to any person who will give information against infringers sufficient to enable us to take legal proceedings against them.

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*Foreign Advertisements—continued.*]

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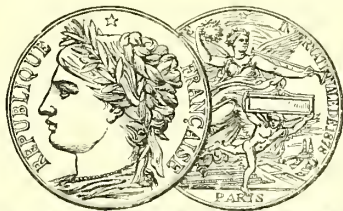
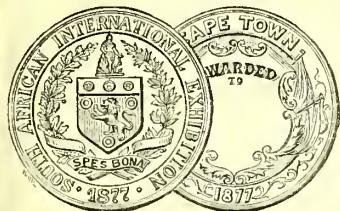


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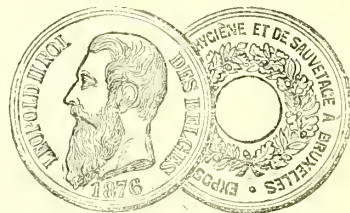


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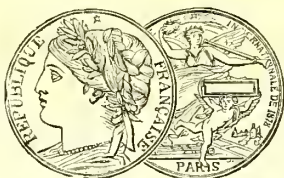
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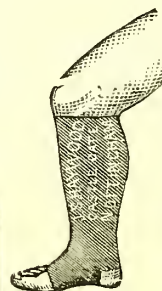
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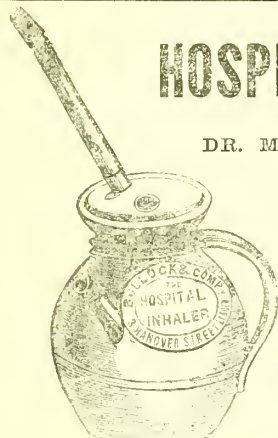
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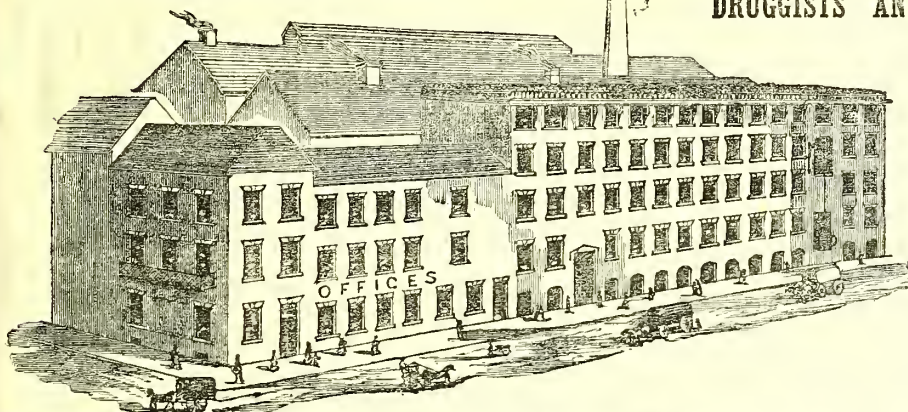


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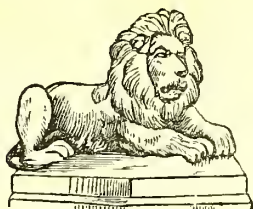
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**PHOSPHODYNE** was discovered and so named by **DR. R. D. LALOR**, in the year 1862, and the Title and Prospectus was duly Registered at Stationers' Hall, London, in the year 1864. This Title and Prospectus, and four of Dr. Lalor's Testimonials (the dates of which have been altered from 1865, 1866, and 1867, as in the Original Letters, to 1870), have been Basely Pirated by the parties Advertising the False Phosphodyne. Copies of Original Letters, with Prospectus, sent post free.

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RICHARDS, SLATER & Co., Grahamstown.  
IMPEY & Co., Port Elizabeth.  
W. F. LANCE & Co., East London.  
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Is the most certain and **SPEEDY REMEDY** for all **DISORDERS** of the **CHEST** and **LUNGS**. In Asthma and Consumption, Bronchitis, Coughs, Influenza, Difficulty of Breathing, Spitting Blood, Whooping Cough, Hoarseness, Loss of Voice, &c., this Balsam gives instantaneous relief, and, a properly persevered with, scarcely ever fails to effect a rapid cure. It has now been tried for many years, has an established reputation, and many thousands have been benefited by its use.

IT HAS A MOST PLEASANT TASTE.

**IMPORTANT TESTIMONIAL.**—"AMPORT FIRS, ANDOVER, MAY 29, 1869.—Sir, I have for some years had your Balsam of Horehound for Mrs. B. Webster, and intended writing to tell you how much benefit she has derived. She was considered consumptive, but the Balsam has quite restored her, and she is now quite strong. I have recommended you dozens of customers, and all have been pleased with it.—I am, yours, &c., H. B. WEBSTER.

Mr. HORROX, Chemist, Mildenhall, writes to say:—"One of my customers says your Balsam is worth sixpence a drop."

**IN THE NURSERY** it is invaluable, as children are fond of it and take it eagerly. Immediately it is taken coughing ceases, restlessness gone, and refreshing sleep ensues. No lady who has once tried it would ever afterwards be without it.

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Chemists, Storekeepers, Shippers, and others who have not hitherto dealt in these Oils, would do well to order a trial assortment, as they invariably give the greatest satisfaction when once used. No other Proprietary Medicines are so largely recommended by, or have received so many commendations from, Physicians as these—see circulars, which may be had from all Wholesale Houses. They are specially prepared for shipment, and will stand any climate.

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# Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

## IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,  
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as liberally untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never read any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

## FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall, London.	Gale & Co., London.	Newbery & Sons, London.
Allen, Hanbury & Co., "	Giles & Son, Clifton.	Oldham, G., & Co., Dublin.
Baiss Brothers, "	Goulding, Messrs. Cork.	Parsons & Richardson, Leicester.
Banks & Richards, Birmingham.	Gratton & Co., Belfast.	Peake, Allen & Co., Dublin.
Barron, Harvey & Co., London.	Grimwade, Ridley, London.	Raimes & Co., Liverpool.
Bell, John, & Co., "	Grindley & Son, Chester.	Raimes & Co., York.
Corbyn & Co., "	Hearon, Squire & Francis, London.	Raimes, Blanshards & Co., Edinburgh.
Cox & Gould, "	Hodgkinson, Tonge & Stead, "	Sang & Barker, "
Curling & Co., "	Hopkins & Williams, "	Sanger, J., & Sons, London.
Curtis & Co., "	Hunt & Co., Exeter.	Sim, James, & Co., Aberdeen.
Davy, M'Murdo & Co., "	Hunt, A., & Co., "	Smeeton, W., Leeds.
Drew, Barron & Co., "	Johnson, J. H. & S., Liverpool.	Southall & Co., Birmingham.
Drew, B., & Alexander, "	Langton, W., & Co., London.	Sutton, W., & Co., London.
Dunn & Company, "	Lynch & Co., "	Tomlinson, Hayward & Co., Lincoln.
Edwards, W., "	Mander, Weaver, Wolverhampton.	Teacher, Hodgkinson & Co., "
Evans, Gadd & Co., Exeter.	Marsden & Sons, London.	Westrup, J. B., Kensington.
Evans, Lescher & Evans, London.	Maw & Son, "	Westwood & Hopkins, Lincoln.
Ferris & Co., Bristol.	Meggeson & Co., "	Woolley, James, Manchester.
Foulger, S., & Son, London.	Maekay, John, Edinburgh.	Wyleys & Brown, Coventry.
Frazer & Green, Glasgow.	Morson, T., & Son, London.	Yates & Co., London.

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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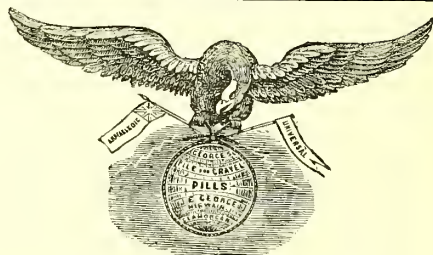
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Surgeons and Chemists supplied with an excellent Aperient Pill (the formula for which will be forwarded), covered with a thin non-metallic film, rendering each pill perfectly tasteless, at 1s. a gross, postage free. They present an elegant, pearl-like appearance, and may be kept in the mouth several minutes without taste, yet readily dissolving, even in cold water, in an hour. Any formula dispensed and covered, and samples, with a list of pills from 500 different forms, which are kept in stock, will be forwarded free on application.

Twenty years' success, as proved by unsolicited Testimonials from Medical Men in almost every town and village in the kingdom, has produced imitations likely to bring a useful invention into disrepute, as a large percentage of the Varnished Pills made to imitate ours pass through the stomach unaltered.

The Registrar of Trade Marks has just granted us (after three months' publicity) the Trade Mark, of which the following is a facsimile, thus officially recognising our claim as the "ORIGINAL MAKERS OF TASTELESS PILLS." All packages sent out from this date will bear this mark—



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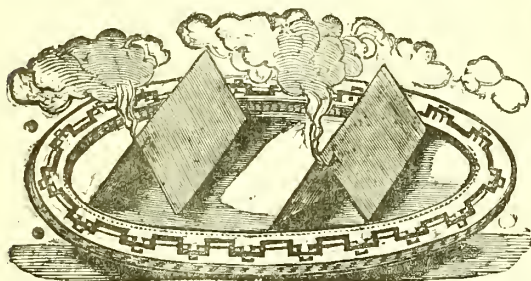
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In its composition and effect it bears no resemblance to any of the many formulæ published, but has curative and chemical properties peculiarly its own, nor is there any analytical test for it. It has been found by the Profession and large numbers of the public to succeed after all imitations had failed, and maintains its unaltered position as the only reliable **CHLORODYNE**.

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"I consider your Chlorodyne a valuable remedy. It has succeeded perfectly in those cases in which I have used it. In its action it is uniform, and in its effects most efficacious."

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**EVANS'S SOLID EXTRACT OF MALT** is also prepared with the following combinations :—

Malt with Quinine and Iron, Pepsine, Parrishes' Chemical Food, Hypophosphites, Cod Liver Oil.

**EXTRACT OF MALT**—"EVANS'S" possesses the power of producing a perfect emulsion with Cod Liver Oil, and in this state the taste of the Cod Liver Oil is more perfectly concealed than can be accomplished by any other known process.

PREPARED ONLY BY

**JOHN EVANS,**

Chemist to H.R.H. the Prince of Wales, H.R.H. the Duke of Connaught, and His Grace the Duke of Marlborough, K.G.,

49 DAWSON STREET, DUBLIN, & QUINSBOROUGH ROAD, BRAY, IRELAND.

INDEX TO ADVERTISEMENTS,

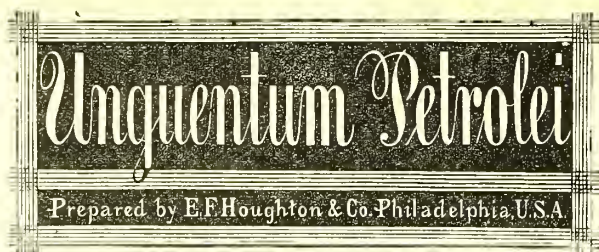
See pages 49, 50.

REGISTERED

NAME

AND

LABEL.



PRICES:

In 100-lb. Tins,  
 1/9 per lb. bulk.  
 In 5-lb. or 10-lb. Tins,  
 1/10 per lb.  
 In 1-lb. Tins, 2/ per lb.  
 PACKAGES INCLUDED.  
 In bulk (packages extra),  
 1/9 per lb.

**ALLEN & HANBURY'S,**

WHOLESALE DRUGGISTS,

PLOUGH COURT, 37 LOMBARD STREET, LONDON, E.C.

N.B.—For General List of Drugs and Chemicals, see Price Current, posted free on application.

**KILNER BROTHERS,**  
**GLASS BOTTLE MANUFACTURERS,**  
 THORNHILL LEES, NEAR DEWSBURY, AND CONISBORO', NEAR ROTHERHAM,  
**YORKSHIRE.**

LONDON OFFICES AND WAREHOUSES:

No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, N.

PRIZE MEDALS: LONDON, 1862; PARIS, 1875 &amp; 1878; PHILADELPHIA, 1876.

We supply Mineral Water Bottles for most of the Patent Stoppers now in use, and are sending them out *fitted complete*.**BOTTLES! BOTTLES! BOTTLES!**

**THE ST. CLEMENT'S GLASS CO. (LIMITED),**  
**MEDICAL BOTTLE MANUFACTURERS,**

Will send their List of Prices on application.

Shippers, Wholesale Houses, and Bottlers of Proprietary Articles should apply  
 at once if they are in search of a first-class article at a low price.

Manufactory and Chief Offices—

**CLEMENTHORPE, YORK.**

**BAGLEY, WILD & CO.,**  
**GLASS BOTTLE MANUFACTURERS,**  
 Works—KNOTTINGLEY, YORKSHIRE.

LONDON OFFICES AND WAREHOUSES:

Nos. 18 to 21 GREAT NORTHERN GOODS STATION, KING'S CROSS, N.

3 and 4 oz. Very good quality Medicals, any shape	...	...	...	8/6	} Net.
6 and 8 oz. " " " " " "	...	...	...	9/6	

"SHIPPERS" OF LARGE QUANTITIES LIBERALLY TREATED WITH.

Prize Medal, Paris Exhibition, 1878, for Excellence of Quality.

TESTIMONIALS FROM ALL PARTS.



# THE ANGLESEY ARTIFICIAL LEG.

The ONLY MEDAL Awarded at the VIENNA EXHIBITION, 1873.

Second Edition, price 7s. 6d.

## AUTOMATIC MECHANISM,

AS APPLIED IN THE CONSTRUCTION OF

## ARTIFICIAL LIMBS,

WITH 100 ILLUSTRATIVE CASES.

By Mr. GRAY, Sole Operator to the late Field-Marshal the Marquis of Anglesey, K.G., and Sir Thomas St. Vincent Trowbridge, Bart. Dedicated, by special permission, to Sir B. C. Brodie, Bart.  
H. RENSHAW, 356 STRAND.

Mr. GRAY's extensive practice in the making of Artificial Limbs has long enabled him to adopt this art as his spécialité, and his success is acknowledged to stand unrivalled.

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ARTIFICIAL LIMB MAKER,

7 Cork Street, Burlington Gardens, London, W.

## LINDSEY & SONS,

EXPORT

## TRUSS & BANDAGE MANUFACTURERS,

32 LUDGATE HILL,

AND

40 GRACECHURCH STREET, LONDON, E.C.

NETT PRICES.—1879.

COMMON PRINCIPLE TRUSSES, Basil and Chamois				Per dozen.	SALMON & ODY'S EXPIRED PATENT, <i>Single</i> , White or Red Roan				Per dozen.
Ditto	Mole Lined	..	18/ and	£0 16 0	Ditto	Calf and Silk sewn	..	£1 7 0	0
Ditto	White or Red Roan	..	..	1 4 0	Ditto	<i>Double</i> , Basil and Chamois	£2 2s. and	2 8 0	0
Ditto	Calf Covered, Silk Sewn	..	..	1 10 0	Ditto	White or Red Roan	..	2 14 0	0
DOUBLE TRUSSES, COMMON PRINCIPLE, covered Basil and Chamois	..	..	..	1 4 0	Ditto	Calf, Silk sewn	..	3 0 0	0
Ditto	Mole Lined	..	..	1 6 0	VERY NARROW, SALMON & ODY'S PRINCIPLE, as "Wickham's," a	..	..	..	..
Ditto	White or Red Roan	..	..	1 10 0	Superior Truss, <i>Single</i>	..	..	2 14 0	0
Ditto	Calf and Silk sewn	..	..	1 15 0	<i>Double</i>	..	..	5 8 0	0
SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imper-	..	..	..	..	GOLE'S EXPIRED PATENT TRUSSES, <i>Single</i> , covered best	Doeskin	..	48/ and	3 0 0
ceptible—	..	..	..	..	Ditto	<i>Double</i> , covered best	Doeskin	96/ and	6 0 0
Plain, <i>Single</i>	..	..	..	1 12 0	MOC-MAIN TRUSSES, Plain, Stuffed real Moc-Main—	..	..	..	..
Best Covered, <i>Single</i>	..	..	..	2 5 0	as White's, £3 12s.	Double	7 4 0	..	..
Plain, <i>Double</i>	..	..	..	2 2 0	Sunk Springs, ditto—	..	..	..	..
Best Covered, <i>Double</i>	..	..	..	2 16 0	as White's, £5 8s.	Double	10 16 0	..	..
SALMON & ODY'S EXPIRED PATENT, <i>Single</i> , Basil and Chamois	..	..	..	1 4 0					

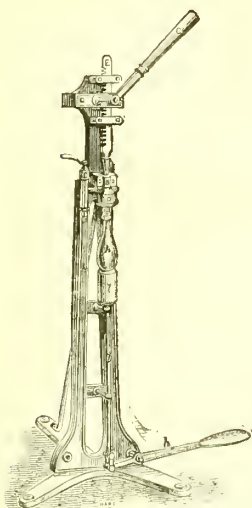
LINDSEY & SONS' Trusses have long maintained a high reputation for quality, and they will be happy to send their full descriptive price list on receipt of address, post free.

Customers are requested to order specially LINDSEY & SONS' TRUSSES, either direct or through any Wholesale House.

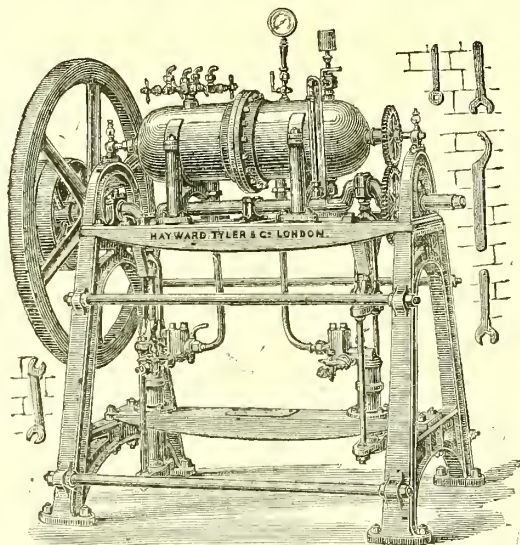
# GOLD MEDAL, PARIS, 1878,

FOR

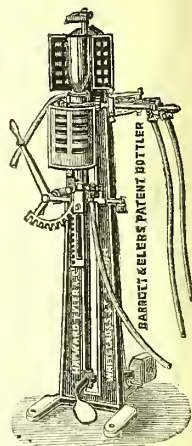
## SODA WATER MACHINERY.



Rack Bottling Machine.



Extra Strong, Large, and Powerful Soda Water Machine for 1,000 dozen per day.



Bottling Machines of every description.

**HAYWARD TYLER & CO., Whitecross Street, LONDON.**

**MONDOLLOT'S PATENT**  
**Soda Water Machinery,**  
 Continuous System without Gazometer.

**GOLD MEDAL AT THE PARIS EXHIBITION,**  
**1878.**

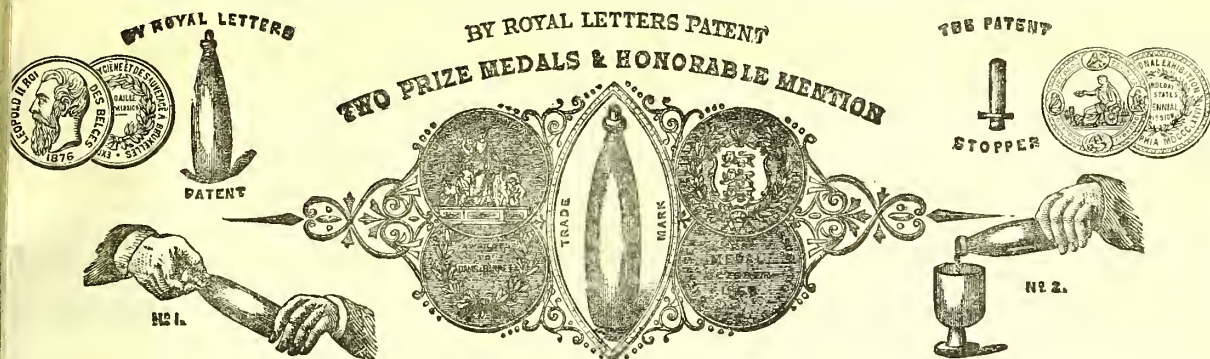
Full particulars on application to the Sole Agents,

**MESSRS. L. FRIQUET & CO..**

**13 LITTLE JAMES STREET, BEDFORD ROW,**  
**LONDON, W.C.**

Sole Agents also for BRIET'S GAZOGENES and SYPHONS.





Note.—With a gentle pressure, as Shown in Diagram No. 1, the Stopper is pushed in, and the position as in No. 2 will empty the contents of the Bottle.

# BARRETT & ELMERS, 9 DACRE ST., WESTMINSTER.

By Royal Letters Patent



Dated June 2, 1874. No. 1923.

## LAMONT'S PATENT BOTTLE, &c.

The Best,  
The Cheapest,  
The Cleanest  
Stoppers  
before the  
Trade.  
—  
No Rubber  
Rings that  
come out or can  
be taken out  
of the necks.  
—  
Skilled labour  
superseded.  
—  
Great Saving  
effected.



Easily Filled,  
Easily Opened,  
Easily Cleansed  
and Washed.  
—  
The Stoppers fit  
perfectly, and  
always fall in  
their right  
places in the  
necks of  
the Bottles,  
thereby  
preventing  
leakages.

### THE NEW STOPPER

(On the LEFT in diagram)

Is made of Ebonite, which is perfectly non-porous, and from its elasticity and lightness it cannot break the Bottles, and will stand any pressure required to be put into them. It is a perfectly pure material, and when properly prepared and cured, and fitted with deodorized Rubbers, it does not in any way affect the contents of the Bottles as regards taste, &c.

Licensees have the advantage of using one or all these Stoppers (except in certain places which applies only to the Wooden Stopper) under one License.

### THE GLASS STOPPERS

(On the RIGHT in diagram)

Have now been in very extensive use and demand for the last four years, and they can be recommended for their cleanliness, simplicity, and their general neat appearance; and from their peculiar construction—being very small and light at the ends—the breakage of Bottles is reduced to a minimum.

## BARRETT & ELMERS' FILLING MACHINES AND SYRUP PUMP COMBINED,

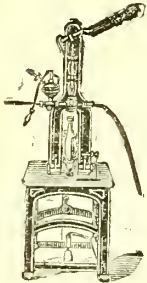
Have been proved to be the Best and Cheapest in the market, of which now upwards of 1,000 have been sold.





## GOLD MEDAL SODA WATER MACHINERY.

Awarded Grand Medal of Progress  
at Vienna, 1873.



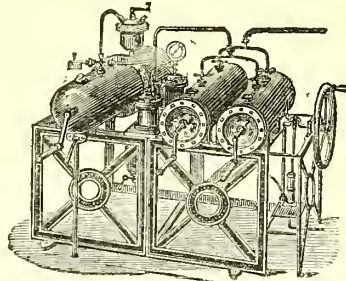
Bottling Machine.

Seven First-class Medals awarded at various International Exhibitions over and above all other Machinery of the kind since 1862.

Soda Water made at a minimum cost by using these Machines.

No Steam Power wanted.  
Entire Saving of Coals.  
Half the usual Labour.

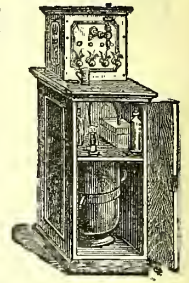
Saves Breakage of Bottles.  
Simple in Construction.



TRADE MARK.  
Generator and Bottling Cylinders.

Agents for Lamont's Patent Bottles, and Vaass & Littman's Ice Making Machines.

Sole Agents for Galloway's "Excelsior" Soda Water Machine, with Steam Engine combined, and "Universal" Double Pump Machine, Guaranteed to Make 40,000 Bottles per Day; also all other Specialties made by this celebrated House.



Cabinet Machine.

### Cost of Machines Saved in one Season in Broken Bottles alone.

The undersigned are the only Manufacturers in Europe of the Improved Machines for Making, Bottling, and Drawing on Draught Aerated or Mineral Waters.

These Machines are lined with pure tin, the pipes are of pure tin, and every care is taken to make them as perfect as possible. For convenience, and saving of time and labour, these Machines are not excelled; therefore, for Makers of Soda Water, Lemonade, Ginger Ale, Seltzer, Potass, Vichy, and other Waters, they are invaluable.

Before purchasing send for Catalogue of 104 pages, post free, giving illustrations and prices.

NOTICE.—The Trade and all others are notified that no one has authority from us to manufacture any of our specialties; and anyone pretending to have such, and manufacturing the same, will be dealt with according to law. All are therefore safe only by dealing with the original Inventors and Manufacturers.

**DOWS, CLARK & Co., 46 & 47 Frith Street, Soho, LONDON.**

In our New Catalogue, just issued, will be found illustrations and descriptions of the various Machines for Making Aerated Waters and Bottling the same, Marble Machines for the Counter, of various designs and prices, Copper Cylinders and Coolers, Syphons and Fillers, Ice Safes, Silver-plated Counter Draught Tubes, Tumblers, and Silver-plated Holders, Measuring Taps, Ice Cream Freezers, Fruit Juices, Extracts for flavouring, and Fruit Syrups, for Export or otherwise. Patent Clasps for Bottles, Pressure Gauges, the Cabinet Machine for Clubs, Private Families, Messes, &c. Mineral Waters for Export. Bottles, Corks, Ginger Ale Extract, Gum Extract, for producing foam, Cider Extract, &c., &c.

Lime Juice Cordial and Syrup of the very finest quality.

# E. S. HINDLEY, BOURTON, DORSET.

## SMALL STEAM ENGINES

*(Economical in Fuel and in First Cost).*

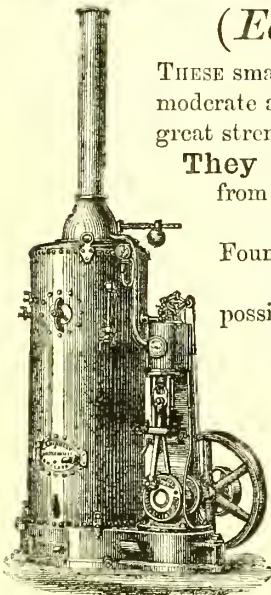
THESE small Engines are specially adapted for driving Soda Water Machinery wherever a moderate amount of cheap power is required. They combine simplicity, compactness, and great strength, are easily managed, occupy very little space, and require no fixing.

They are available at any time, as steam can be got up in half an hour from cold water.

They require no fixing, being erected on a Cast-Iron Water Tank Foundation.

They are simple in construction, and, having as few working parts as possible, are not likely to get out of repair.

They can be driven by a boy. Can be made to burn GAS instead of Coal.



Nominal horse power...	1	1½	2	3	4	5	6	8	10
Engine and Boiler combined...£	39	47	55	70	88	100	115	135	157
Engine and Boiler on three Wheels, with Handle.....£	41	49	57	75	95	110	125	145	167

ALL SIZES IN STOCK—DELIVERED FREE TO ANY STATION;

Illustrated Catalogues with full particulars on application.



# THE LEAMINGTON

TRADE  
"APNEUMATIC"  
MARK

MINERAL WATERS

**FINGER ALE (Aromatic).**—There is now a large consumption in private families of this very popular beverage, its aromatic properties and Brilliancy of Colour are perfection; part of a bottle may be used, and the remainder if re-corked will keep in perfect condition.

Apneumatic Soda Water.  
Apneumatic Brighton Seltzer.  
Apneumatic Potass Water.

Apneumatic Lithia Water.  
Apneumatic Aerated Water.  
Lemonade.

Dr. A. H. HASSALL, in his recent Analysis, says:—"I have repeatedly Analysed the Aerated Waters manufactured by Messrs. Kinmond & Co., and have always been able to report thereon in terms of the highest praise."

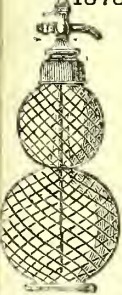
*Our terms are more favourable for a family trade than those of any first-class makers.*

**KINMOND & CO., late J. DAILY & CO., LEAMINGTON.**

Trade List and Descriptive Pamphlet of the Apneumatic process free on application.

## EUGENE GERAUT & CO.

**NEW PATENT LEVER  
SELTZOGENES.**



For the immediate production of Eau de Vichy, Soda Water, Sparkling Lemonade, Aerated Waters.

First introduced by EUGENE GERAUT & Co. in 1853.

3-pint, wire, 13/; 5-pint, wire, 18/; 8-pint, wire, 30/.  
Cane covered, 3-pint, 6d.; 5-pint, 1/; 8-pint, 2/ each extra.  
Strongly silver-plated top, 5/ each extra. 3-pint size, strongly silver-plated, richly decorated porcelain stands, 30/ each; 5-pint size, ditto, 38/ each; 8-pint size, ditto, 48/ each.

Our well-known Seltzogenes are improved yearly, and have already stood a public test of upwards of Twenty Years, and are acknowledged as **THE VERY BEST.**

**POWDERS FOR THE ABOVE.**—Subject.—3-pint, per dozen boxes, 22/; 5-pint, ditto, 36/; 8-pint, ditto, 63/.

LIBERAL DISCOUNT FOR LARGE QUANTITIES.

**1 & 2 CORPORATION BUILDINGS, FARRINGTON ROAD, LONDON, E.C.**



**SYPHONS.**

**IMPORTANT NOTICE.**

**Great Reduction in Price.**

1873. Clear or coloured glass, pure **ENGLISH BLOCK TIN TOPS**, with piston or cap.

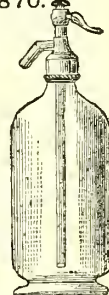
22/6 per dozen, for quantities of not less than one gross.

25/ per dozen, for less than one gross.

*Packing in Cask, 5/ per gross.*

The Name marked on the metals free of charge for quantities of not less than one gross.

The Name engraved on the glass for quantities of not less than one thousand, 2d. each extra.



## G. COLE,

MANUFACTURER OF BOXES FOR CODD'S PATENT BOTTLES,

AND MAKER OF

**ALL KINDS OF PACKING CASES**

FOR THE SODA WATER TRADE.

N.B.—Orders executed with dispatch, and on the most reasonable terms.

**STEAM WORKS:—**

**48 and 50 TRINITY STREET, ROTHERHITHE, S.E.**

**BINGLEY'S**



ANALYSED

MANUFACTURED BY

**JOHN BINGLEY, Pharmaceutical Chemist,  
NORTHAMPTON.**

**SODA WATER.  
SELTZER.  
POTASH.  
LEMONADE.  
LITHIA, &c.**

**Dr. BILLING'S**

**INSTANTANEOUS DISINFECTANT & DEODORIZER**

IS THE MOST RELIABLE AND THE CHEAPEST  
IN THE WORLD.

Harmless to furniture and linen. Does not stain. Odourless, but powerful! It instantly deodorises and disinfects any material it is applied to, no matter how foetid or offensive! Destroys and neutralises instantly, all poisonous gases, arrests decomposition, and prevents contagion. Reliable and safe in the sick chamber, the hospital, and for all sanitary purposes.

**"ONLY ONE QUALITY—THE BEST!"**

Price 2s. per quart bottle, sufficient to make two gallons of the best and cheapest disinfectant in the world.

Send for Pamphlet.

**OFFICES AND DEPÔT: 77 CANNON STREET, E.C.**

A copy of Professor Attfield's Report will be forwarded by post on application.



# CHEMISTS' SPECIALITIES.

NON-ALCOHOLIC, AERATED, AND PHOSPHATED IRON BEVERAGE.

# ZOEDONE.

BRAIN AND NERVE TONIC AND NUTRIENT TONIC BEVERAGE.

**ZOEDONE** is not a medicine, but a beverage for daily use. It possesses properties combined in no other beverage, having the essential constituents of the BLOOD, BRAIN, and NERVE TISSUE. It is agreeable to the palate, pleasant to the eye, and innocent in its action. It is also non-alcoholic. As a dinner beverage it is unsurpassed as an agreeable sparkling drink; especially adapted for the overworked, worried, or anxious; for convalescents it is invaluable. It is recommended to the weak and to the strong as life-renewing and health-sustaining. The Faculty speak in the highest terms of it; and an award of Honourable Mention has been given to it at the Paris Exhibition, 1878.

**PRICES (including Bottles), free on Rails at Wrexham:—6s. per dozen, in Half Champagne Bottles.**

6d. EXTRA PER DOZ. FOR PACKAGES, not returnable. 1s. PER DOZ. EXTRA, specially prepared for shipment, and packed in casks.

"Among the products exhibited by R. Evans and Company, of Wrexham, is their Zoedone or Phosphated Beverage, which is an elegant palatable tonic drink containing the phosphates—lime, iron, soda, and potash"—LANCET.

**ZOEDONE MAY SAFELY BE TAKEN DAILY—IN USUAL QUANTITIES AS OTHER BEVERAGES.**

Dr. ED. A. KIRKBY, in his work on "*The Value of Phosphorus*," says:—"The therapeutic effects of Phosphorus are due to its ALIMENTARY properties, and when employed as a MEDICINE it is appropriated as a FOOD in building up and renovating nerve tissue. Phosphorus is a well-known constituent of the blood, and a never-failing ingredient in the more important tissues and fluids of the body. In common with Iron and Lime, it is a very important ALIMENTARY principle, and whenever its supply is not in proportion to the needs of the economy, deterioration of nervous tissue and nerve force is an inevitable consequence."

## Opinions of the Press, and Dr. Hassall's Report.

"**ZOEDONE** is at once a food and a drink, having high value for sustentation and for restoration of the debilitated,"—*British and Foreign Confectioner*.

"**ZOEDONE** is no doubt a very efficient and pleasant vehicle for the administration of the but little soluble phosphate of iron,"—*Lancet*.

Dr. WOOD says:—"As a nutrient tonic to the nervous system, and in all cases of nervous exhaustion, the use of Phosphorus is commended by reason and by experience."

"I have carefully examined a sample of the New Aerated Mineral Water, manufactured by Messrs. Evans & Co., and to which they have given the name of **ZOEDONE**. I find the statement made respecting its composition to be fully borne out by the analysis. The **ZOEDONE** is a BRIGHT, SPARKLING, and VERY PLEASANT beverage, quite free from any medicinal taste; indeed, it forms a most agreeable and elegant vehicle for the administration of the phosphates of Lime and Iron which it contains, and which are in a state of complete solution."—ARTHUR HILL HASSALL, M.D., Author of "*Food, its Adulterations and the Method of their Detection*."

Patentee: D. JOHNSON, F.C.S. Manufacturers: RICHARD EVANS & CO., Wrexham, North Wales.

ALSO MANUFACTURERS OF ABSOLUTELY PURE AERATED MINERAL WATERS FOR HIGH-CLASS TRADE.  
SPECIAL TERMS FOR CHEMISTS.

## RICHARD EVANS & CO.'S NON-EFFERVESCENT CONCENTRATED SOLUTION OF LITHIA & POTASS.

FOR THE USE OF THE MEDICAL FACULTY AND FOR DISPENSING CHEMISTS.

Each fluid ounce contains 10 grains Lithia Carbonate and 20 grains Potass Bi-carb.

A 20-ounce bottle of this Liquid Concentrated Lithia and Potass is equal in Medicinal value to three-and-a-half dozens of ordinary Aerated Lithia Water.

From the *Lancet*.—"NOTE ON THE PARIS EXHIBITION.—Among the pharmaceutical products shown by Messrs. R. Evans & Co., of Wrexham, is to be noticed their Concentrated Solution of Lithia and Potass, which is a good therapeutical improvement."

In 20-ounce Bottles, at 6s. each.

## RICHARD EVANS & CO.'S AROMATIC GINGER ALE

Is non-alcoholic, and free from intoxicating properties. It is eminently stimulating and invigorating, pleasant to the eye, and agreeable to the taste. As a dinner beverage it promotes digestion. It is the safest beverage for the overheated, and is thus specially adapted for evening parties. It is recommended to be decanted (say two or three bottles at a time) into a glass jug, and its sparkling properties will then be improved when poured from the jug into the tumbler or champagne glass.

R. EVANS & CO.'S GINGER ALE may be safely taken by the young or the aged as daily beverage, and is equally adapted for a winter or summer drink.

R. EVANS & CO.'S GINGER ALE, and all their other beverages, are perfectly free from impurities, and are guaranteed free from LEAD and other injurious contaminations. The water from which these beverages are prepared is unsurpassed for purity, as shown by the analysis of several distinguished chemists.

Price 30s. per gross.

In which quantities (or assorted Mineral Waters) it is delivered carriage paid to any station, the empties being also returned at R. EVANS & CO.'s charge.

**RICHARD EVANS & CO., Wrexham, North Wales.**



# HOT WEATHER!

## WHAT TO DRINK AND WHAT TO AVOID!

**A MORE OR LESS SPECIFIC ANSWER TO WHICH QUESTION** will certainly throughout the coming summer not unfrequently be desired of Chemists by their customers, especially in sea-side towns, where, to the sitors thereto, it commonly happens that the change of air and water, supplemented very frequently by undue exposure to solar heat, renders the possession of a perfectly wholesome and corrective refrigerant remedy a decided desideratum, and for the proper fulfilment of which requirement we venture to think it will be readily allowed that the use of the ordinary effervescent compounds is utterly unfitted and unscientific, possessing, as they uniformly do, the double disqualification of alkalinity and more or less of purgative property.

Before, therefore, recommending for more than very occasional use effervescent preparations of the class uniformly composed of Tartrate of Soda with varying proportions of Sulphate of Magnesia, the fact should never be lost sight of that they exert a powerfully alkaline effect, which, when for some time continued, most certainly impairs nutrition by causing a serious loss of regulable power in the blood—a depravation, it will be unnecessary to remark, especially typical of scurvy and other vitiated conditions.

It will, therefore, we think, be sufficiently obvious that the novel combination of the salutary principle of lime fruit—to the entire exclusion of Tartaric Acid—with effervescent properties unalloyed by the usually excessive alkalinity, for the first time applied in

## WENHAM'S LIME JUICE SALINE OR HEALTH SALT,

such as to render it a general domestic remedy of prime importance, whether it be had recourse to for its gratefully refrigerant and prophylactic properties, or for the more specifically alterative and antiputrescent action of its constituent Lime Juice, which, being furthermore supplemented by the valuable therapeutic agency of Nascent Oxygen derivable from its potassic component, leaves nothing to be desired to render it physiologically correct as a remedy in the numerous cases where, from imperfect oxygenation consequent upon excesses in diet or unsanitary conditions of life, the blood has become charged with carbonaceous matters—a condition it is needless to observe always provocative of functional derangements, as well also as it offers a favouring idus for the reception and development of zymotic diseases.

### NOTICE TO THE TRADE.

By the introduction of **WENHAM'S LIME JUICE SALINE** to the notice of their Customers (which from its unique and attractive appearance it self effects when displayed upon the counter), Chemists have the opportunity of considerably augmenting their turns by the sale of this entirely novel and elegant preparation, which—to enumerate some of its advantages—

possesses in a complete and portable form the valuable anti-scorbutic, alterative, and general healthful properties of Lime Juice and Potash;

tendering it in the highest degree a remedy at once palatable, refreshing, and health-sustaining;

Which, with a total absence of qualities whereby its range of usefulness can be limited, as in the case of purgative and obviously weakening Tartrates of Soda, &c.,

supply important desiderata that, considered in connection with the unapproached intrinsic value of the article, amply warrants the assumption of its obtaining the decided approval of the Public wherever introduced.

"35 Baker St., W., July 9th, 1878.

"DEAR SIRS.—I think your Effervescent Lime Juice Saline is well made, and should become very popular as a contribution to 'Elegant Pharmacy,' as well as a cooling beverage during the heat of summer. You will be pleased to hear that we have just sent a consignment of it to H.M.S. *Monarch*, Cyprus.—Yours faithfully,

"A. W. POSTANS, F.C.S."

"Aylesbury Pharmacy, 11th Nov., 1878.

"Messrs. WHEELER & Co., I sold out of your L. J. Saline on Monday last, and have got in a fresh supply, which makes my third case. I lately recommended it to a gentleman, who was so especially pleased with it that, upon the occasion of his purchasing a second bottle, he assured me that he should spare no pains to make known its virtues amongst his numerous friends. From the trial, therefore, which I myself have made, and the testimony I have received from my customers, I can confidently affirm it to be the best preparation before the public or the trade.—I am, Gentlemen, Yours faithfully,

JOHN TURNER."

### IMPORTANT TO SHIPPERS.

**LIME JUICE SALINE** has most successfully been introduced with a view to obviate the difficulty of obtaining really reliable Lime Juice under any but very exceptional circumstances. In the condensed form, now for the first time presented to the public, the difficulties attendant upon its use and transport in the liquid condition are wholly obviated; and by a combination of the most *recherché* qualities, together with an entire freedom from the lowering effects of ordinary saline compounds, a remedy is provided which requires but a single trial to offer the most convincing proofs of its immense usefulness.

"21 Eccleston Square, S.W.

"September 12th, 1878.

"Gentlemen,

"Should Lime Juice be proved to be an efficacious remedy for Scurvy, the palatability and 'readiness for use' of your preparation will render it invaluable in all future Arctic Expeditions.

"I am, Gentlemen,

"Very truly yours,

"A. H. MARKHAM, Captain R.N."

Captain A. H. MARKHAM was Commander of H.M.S. *Discovery* in the recent Arctic Expedition.

In Bottles, 2s. 6d. and 4s. 6d. each; Cases for Export, 21s. Sole Manufacturers (Registered),

## WHEELER & CO., LONDON, & SOUTHEM-ON-SEA.

### OPINIONS OF THE PRESS.

**CHEMIST AND DRUGGIST.**—"WENHAM'S EFFERVESCENT 'LIME JUICE SALINE' is the well-chosen title of a new granular preparation, of the class which has become so widely used in domestic medicine within recent years. This will probably, in a very little while, take its place in popular favour with the best of them. It is an exceedingly well-made salt, readily soluble, and with a flavour which fully justifies its title. It is most attractively put up in glass-stoppered bottles, with a handsome outside wrapper."

**EUROPEAN MAIL.**—"The public have been sufficiently awakened by the impostures of the past to carefully discriminate between the remedies which are offered to them, and to select those only which common sense approves. Hence it is that we find such invaluable preparations as WENHAM'S EFFERVESCENT 'LIME JUICE SALINE' obtain a large and ready sale."

**TRADE NOTES.**—"MESSRS. W. MATHER & CO.'S PRICES CURRENT.—"As it possesses all the refreshing and medicinal virtues of the freshly-expressed West India Lime Juice, so highly valued for its health-giving properties, and in such a convenient form, it cannot fail of becoming exceedingly popular. The style in which it is put up deserves its merits our unqualified praise—in strong large capsuled bottles—evidently no expense has been spared in the get-up; and we strongly recommend it to the notice of the trade, for it will repay introduction."

**TRADE NOTES.**—"MESSRS. BURGOYNE & CO.'S PRICES CURRENT.—"Samples of this comparatively new article have reached us. It is a preparation of the best India Lime Juice, and should be of great utility where those antiscorbutic virtues of the lime, so well known, are required. It is sparkling, effervescent, and very palatable, and the proprietors claim for it the possession of all those properties for which the lime is esteemed, without any of the attendant lowering effects of ordinary salines. It will keep, we are told, in any climate, and is always fresh, the peculiarities of the lime, and the antipyretic and alterative salts of potash and soda with which it is combined, remaining always fresh and effective. It is very tastefully packed and labelled, and will eventually command a ready sale."

**AGENTS.**—Calcutta, Messrs. Bathgate & Co.; Bombay, Messrs. D. S. Kemp & Co.; Allahabad, Mr. J. L. Lyell; Melbourne and Wellington, Messrs. Felton, Grimwade & Co.; Sydney and Brisbane, Messrs. Elliott Brothers; Dunedin, Auckland, and Christchurch, Messrs. Kempthorne, Prosser & Co.; Port Elizabeth, Messrs. N. Adler & Co.



**PURE AERATED WATERS.**

MANUFACTURED BY

**T. & F. J. TAYLOR, NEWPORT PAGNELL.**

ESTABLISHED 1835.

Purity and Excellence of the Water certified by Analysis by  
PROFESSOR ATTFIELD, Ph.D., F.C.S.**NEWPORT PAGNELL SODA WATER**, containing  
10 grains of Bicarbonate of Soda in each bottle.**AERATED WATER**, without Alkali.**POTASH WATER**, containing 10 grains or 20 grains of  
Bicarbonate of Potash in each bottle.**LITHIA AND POTASH WATER.****SELTZER WATER**, prepared according to Analysis of the  
Natural Water.**EFFERVESCING LEMONADE**, superior in flavour  
colourless, and warranted to retain its brilliancy.*Each Bottle is protected by a Label bearing the Signature of the Firm.***FOREIGN MINERAL WATERS.****FREDERICKSHALL**, (5 Cases, 6/- per Case less) 24/6 Case, 30 bot... 34/ Case, 60 1/2 bot  
**APOLLINARIS** (20 Hprs., 1/- per Hpr. less) 25/ Hpr., 50 " 39/ Hpr., 100 "

Hampers free, carriage paid; Empty Bottles, 6d. per dozen.

**HUNYADI JANOS** (10 Cases, 3/- bts., 5/- less: 10 Cases, bts., 3/- each less)**SELTZER** ... 30/- Case, 25 bts. ... 50/- Case, 50 1/2 bts.**PULLNA** ... 11/6 Hpr., 25 " ... 15/6 Hpr., 50 "**VICHY** ... 18/- Case, 20 " ... 30/- Case, 50 "**CARLSBAD** ... 31/- " 50 " ... 27/- " 50 "**KISSENGEN** ... 37/6 " 50 "**SCHWABACH** ... 45/- " 50 "**HOMBURG** ... 27/6 " 50 "**WILDUNGEN** ... 37/6 " 50 "**CARLSBAD SALTS**, 1/2-Bots., 21/- per doz.; 1/4-Bots., 41/- per doz.; Bots., 80/- per doz.**FINE NORWEGIAN BLOCK ICE.**

ORIGINAL BLOCKS, 2 to 3 cwt., each ... 2/6 per cwt

1 cwt. to 2 cwt., ... 4d. per lb. 1 Under 1 cwt. ... 1d. per lb.

Packing and Mats for Original Blocks free; 3d. each allowed for Mats if returned

in good condition.  
PRINTED DIRECTIONS for STORING ICE sent free on application.**W. B. HARRISON,**Importer of Ice & Mineral Waters,  
6 BRIDGE STREET, SUNDERLAND.**RANDALL, SLOPER & CO.,  
SODA WATER MANUFACTURERS,  
SOUTHAMPTON.**GOODS FORWARDED CARRIAGE PAID WITHIN 80 MILES OF  
SOUTHAMPTON, ON ORDERS OF 2 GROSS AND UPWARDS.**Soda, Seltzer, Potash & Aerated Waters  
supplied in Syphon Bottles.**Importers of Hunyadi János, Friedrichshall, Vichy,  
Pullna, Carlsbad, and other Foreign Mineral Waters,  
supplied at Prices which will bear comparison with  
London Rates.

PRICE LISTS FORWARDED ON APPLICATION.

**"ABSOLUTELY PURE."**

SEE ANALYSES. Sent post free on application.

**ELLIS'S** **CRYSTAL SPRINGS.**

**RUTHIN**

**WATERS.**

Soda, Potash,  
Seltzer, Lemon-  
ade, also Water  
without Alkali.  
For GOUT,  
Lithia Water, &  
Lithia &  
Potash Water.



REGISTERED.

**CORKS BRANDED "R. ELLIS & SON, RUTHIN,"** and every  
label bears their Trade Mark. Sold everywhere, and wholesale of**R. ELLIS & SON, RUTHIN, NORTH WALES.**

London Agents: W. BEST &amp; SONS, Henrietta St., Cavendish Square.

**HAY'S  
CONCENTRATED SOLUBLE  
ESSENCE OF JAMAICA GINGER**

(Guaranteed Pure and Free from Capsicum).

Specially adapted for the manufacture of GINGER BEER, GINGER ALE, WINES, and CORDIALS. These, when  
made with this essence, are bright and transparent, and have the finest Jamaica Ginger flavour and  
aroma. It is also adapted for all Dietetic, Medicinal, and Pharmaceutical purposes.**DOSE.—Ten to Forty Minims.**

Each fluid ounce of this Essence contains the aromatic constituent of 240 grains of Jamaica Ginger Root.

"Singularly free from resin."—*The Lancet*."It is really necessary that a superior Ginger Beer should be introduced  
to the public, and in Mr. HAY'S GINGER ESSENCE we find the very ingredient  
to bring about such a desideratum."—*Mineral Water Trade Recorder and  
Advocate*."Ginger Beer manufactured from this ESSENCE has the purest Jamaica  
Ginger Aroma distinguishable as soon as poured out. It is a leverage fit  
for any gentleman's table, and ought to attain great popularity."—*The  
Chemist and Druggist*.**A COMPOUND ESSENCE**, which is an addition of **Vanilla, Lemon, and other flavours**, is also  
prepared. It is strongly recommended for the manufacture of **Ginger Beer, Wines, &c.**—to  
which it imparts a peculiarly fine fruity flavour and aroma. Syrups and all Saccharine preparations of  
Ginger generally undergo speedy fermentation, but when made with either of these Essences, keep re-  
markably well.

TRADE PRICES:—Simple Essence, 5/- per lb.; Compound Essence, 5/6 per lb.

PREPARED BY

**W. HAY, Chemist, &c.,****4 REGENT'S TERRACE, ANLABY ROAD, HULL.**

Agents—Messrs. HEARON, SQUIRE &amp; FRANCIS, Wholesale Druggists, 5 Coleman St., London, E.C.

"Contains the essential oil or AROMATIC CONSTITUENT OF THE ROOT, has  
the AROMA OF GINGER without the unpleasant taste of the resin, and is  
specially adapted for flavouring GINGER BEER."—*Pharmaceutical Journal*."It is a pure elegant preparation, and is free from resinous matter.  
Ginger Beer made with it is clear and transparent, has the aroma and flavour  
of the ginger, and is very pleasing to the palate."—*Medical Times and Gazette*."The Ginger Beer made with this purer TINCTURE OF GINGER is extremely  
grateful and palatable. It is clear and bright as water, and is certainly pre-  
ferable to some wines we have tasted under the name of champagne."—*Medical Press*.



# MILLS & CO. BOURNE WATER, THE PUREST IN ENGLAND.

MILLS & CO., Manufacturers of the  
Original BOURNE ARTESIAN AERATED WATERS.

BOURNE SODA WATER, unequalled for  
its natural Alkalinity.

BOURNE POTASH WATER—a Special  
Remedy for Rheumatism and Gout.

BOURNE LEMONADE—Superior Quality,  
made from the Fruit.

BOURNE LITHIA WATER—Specific for  
the Gout. Guaranteed to contain a fixed quantity of Lithia.

BOURNE SELTZER WATER—The natural  
Alkalinity of the Bourne Artesian Well Water, combined  
with Artificial Salts, produces one of the best articles made.  
This Seltzer Water is well adapted for invalids for its purity.  
When taken at dinner-time, it promotes digestion.  
Early in the morning, slightly aperient.

R. M. MILLS & CO., MANUFACTURERS, BOURNE.  
Messrs. Padgett & Son, Wine Merchants, 27 Motcombe  
Street, and Messrs. Hardy & Co., Chemists, 42 Fenchurch  
Street, corner of Mincing Lane, Wholesale Agents,  
London.  
And their appointed Agents throughout the Kingdom.

# J. H. CUFF'S MINERAL WATERS, Atkinson St., Deansgate, MANCHESTER.

SODA WATER  
SELTZER WATER  
POTASS WATER  
15 grs.

LEMONADE  
GINGER ALE  
LITHIA WATER  
5 grs.

LITHIA WATER WITH POTASS.

QUININE TONIC WATER, &c., &c.

SENT IN BIN CASES, NO PACKING REQUIRED.

Carriage paid on 12 Doz. assorted, or 6 Doz. of one kind.

Priced Lists free on application.

DISCOUNT ACCORDING TO QUANTITY.

SPECIAL TERMS FOR EXPORT ORDERS.

Attention is directed to Cuff's Soda, Seltzer, and Potass  
Waters, and Ginger Ale (the latter a speciality), all of which  
command a very extensive and ready sale.

Cuff's Waters are prepared expressly for a High-class  
family Trade.

# TO THE MINERAL WATER TRADE.

J. B. LAMBE & Co. desire to draw the attention of LICENSEES of  
PATENT STOPPERED BOTTLES to their

## SEAL MOTTOES

OF WHICH THEY ARE THE ORIGINAL MAKERS.

HONESTY  
IS THE  
BEST POLICY.

SHORT RECKONING  
MAKES  
LONG FRIENDS.

The Article is made of good stout Board, while the Mottoes are numerous and varied,  
and packed carefully in Boxes of 3,000 each.

These Seal Mottoes are a great convenience, strengthening the cap label, and keeping the lips of the bottle free from dirt.

A Large STOCK is kept, and Orders can be supplied immediately on receipt.

PRICE LIST.			
5,000	:	:	9d. per 1,000.
25,000	:	:	8d. "
100,000	:	:	6d. "

Special Quotations for Larger Quantities. Samples will be sent on Application.

MANUFACTURERS OF EVERY DESCRIPTION OF LABELS, SHOW CARDS, &c., SUITABLE FOR THE TRADE.

**J. B. LAMBE & CO.,**  
CHROMO-LITHOGRAPHERS & GENERAL PRINTERS,  
199 UPPER THAMES STREET, LONDON, E.C.

# SILICATED CARBON FILTERS.

## DOMESTIC FILTER, NO. 27.



Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.  
All sizes of this pattern can now be had with Patent Ice Compartment, which renders this Filter the most perfect of Refrigerators.

PRICES.		With Ice Compartment.	
No. 0, capacity	1/2 gall.	10s. 6d.	..
No. A, "	1 "	14s. 6d.	.. 17s. 6d.
No. B, "	2 "	21s. 0d.	.. 25s. 0d.
No. C, "	4 "	32s. 0d.	.. 36s. 0d.
No. D, "	6 "	42s. 0d.	.. 48s. 0d.
No. E, "	8 "	52s. 0d.	.. 60s. 0d.
No. F, "	12 "	70s. 0d.	.. 80s. 0d.

## UNIQUE STONEWARE FILTER, NO. 28.

No House should be considered as thoroughly furnished until it is supplied with one or more good Filters.

No Water should be used for Drinking or Cooking without being Filtered.

This Filter is made of a New Ornamental Stoneware, similar in shape to the Domestic Filter, and of two-gallon capacity. When arranged in a Hall or Conservatory, side by side with evergreens, the effect is very pleasing.

Price, with Silver-plated Tap, 30s.



## MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR  
Mansions, Schools, Hospitals, Public  
Institutions, Breweries, Distilleries,  
Soda Water Manufactories,  
Dye Works,

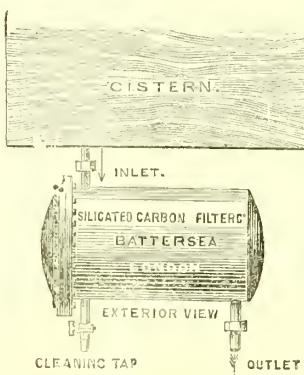
And all other Establishments where large quantities of

### PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:—

A, 1/2-inch or 3/4-inch pipe .. ..	£6 6s.
B, 1-inch pipe .. ..	£9 9s.
C, 1 1/2-inch, 1 1/2-inch pipe .. ..	£15 15s.
D, 2-inch pipe .. ..	£26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into  
for Large Works, Institutions,  
&c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.

Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

## FILTERS FOR SHIP'S CABIN USE,

### No. 26.

As supplied to the Admiralty, and used on board the first Steam Life-Ship "Peronelle."

Made in hard Stoneware, strongly cased in Wicker, and fitted with Silver-plated Tap.

1/2-gallon capacity .. ..	s. d.
1 " " " " " " " "	10 6
2 " " " " " " " "	15 0
4 " " " " " " " "	22 0
6 " " " " " " " "	36 0
8 " " " " " " " "	48 0
10 " " " " " " " "	57 6
12 " " " " " " " "	68 0

These Filters are invaluable on board ship, furnishing a supply of pure and wholesome water during a long voyage.



## NEW DOUBLE-ACTION FILTER,

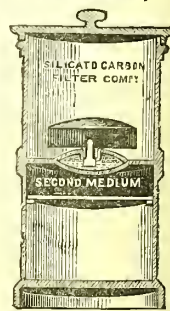
### No. 35.

In Cream-coloured Stoneware.

This Filter is specially adapted for rain water, and also for very hard or muddy water. The second medium being protected by a slab, no water can possibly reach it until after passing through the first medium. By this means a double process of filtration is effected, whilst at the same time the impurities contained in the water are deposited on the slab, and may be easily cleansed away with a sponge.

Prices complete—A, 2 gallons, 30s.;  
B, 5 gallons, 50s.

Extra Blocks supplied for these Filters at 10s. 6d. and 15s. each.



## REFRIGERATIVE CANVAS FILTERS, No. 32,

For hanging in Verandahs, Tents, or Huts, and also for travelling in hot climates. Prices—A, 21s.; B, 25s.

A LIBERAL DISCOUNT TO THE TRADE.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

PARIS: 131 Boulevard Sebastopol.

NEW YORK: 62 Water Street (H. R. Mensing, Agent).



# SILICATED CARBON FILTERS.

## SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.

Each of these portable Filters may be



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

They are readily cleaned from sedimentary matter by merely blowing through the tube, and brushing the surface of the filtering medium.

- |   |       |
|---|-------|
| A.—Pocket Filter, $2\frac{1}{2}$ inches diameter, in porcelain, with glass mouthpiece, in decorated metal box .. .. .   | s. d. |
| B.—Ditto, $3\frac{1}{2}$ inches diameter, in best stoneware, with glass mouthpiece, in decorated metal box .. .. .  | 2 6   |
| Ditto, $3\frac{1}{2}$ inches diameter, in best stoneware, with silver-plated tap, in decorated metal box .. .. .  | 5 0   |
| C.—Emigrant's or Syphon Filter, 5 inches diameter, in best stoneware, with silver-plated tap, in enamelled metal box .. .. .  | 7 0   |
| G.—Pocket Filter, for carrying over shoulder, as supplied to the Ashantee Expedition, to Col. Gordon, C.B., Commanding the Forces in Upper Egypt, to the Army of Roumania, and also to the Egyptian Forces in Abyssinia .. .. . | 12 0  |
|   | 3 6   |

## TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

### PRICES.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.  
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

## POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

## SILICATED CARBON BLOCKS.

2 in., 1s. 6d.;  $2\frac{1}{2}$  in., 2s. 6d.;  $2\frac{3}{4}$  in., 3s.;  $3\frac{1}{2}$  in., 4s.;  $4\frac{3}{4}$  in., 5s. 6d. ea.  
SPECIAL QUOTATIONS FOR QUANTITIES.

## PRIZE FILTER,

This Filter is constructed in the form and colour of an Etruscan Vase, having inside it a movable pan, into which the Silicated Carbon filtering medium is fitted.



## PATTERN NO. 23.

The exterior is made of Porous Ware, which acts with remarkable power as a Refrigerator, keeping the water deliciously cool. Capacity, about Two Gallons.

PRICE, WITH SILVER-PLATED TAP, £3 10s.

## DINING-ROOM FILTER, No. 22.

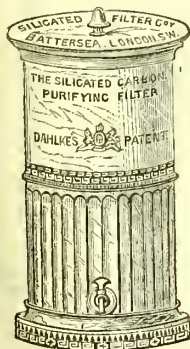
MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

### PRICES.

- |   |       |
|---|-------|
| A .. .. .                                     | 35s.  |
| B .. .. .                                     | 80s.  |
| A, with Ice Compartment (New Patent.) .. .. . | 42s.  |
| B, with Ice Compartment (New Patent.) .. .. . | 100s. |

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.



## REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

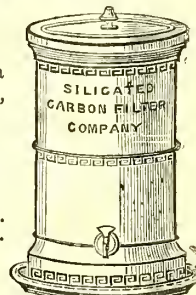
Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap .. .. . 31s. 6d.  
Ditto, ditto, with Ice Compartment .. .. . 42s. 0d.  
Capacity, Two Gallons.

Specially adapted for Tropical Climates.



**PORTABLE FILTER, No. 34,** for Travellers at Hotels, Families at the Seaside, Pic-nics, &c. Made in Marbled Porcelain, with Cover. Can be placed in a jug, decanter, or other vessel. Price 7s. 6d. each.

**SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.**



Exhibitors at the Philadelphia Exhibition] **DRINKS FOR ALL CLIMATES.** [Agricultural Hall, Location L.  
UNDER THE ESPECIAL RECOMMENDATION OF THE FACULTY.

## SUPERCARBONATED MINERAL WATERS.

Manufactured and Sold Wholesale by **CANTRELL & COCHRANE,**

**DUBLIN & BELFAST,**

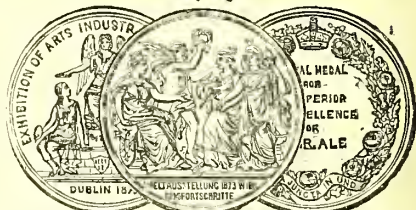
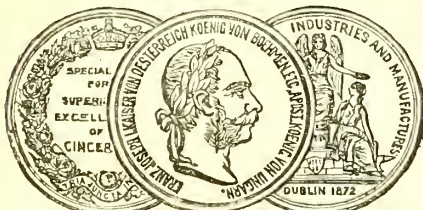
Makers of the Celebrated  
AROMATIC

**GINGER ALE.**

CONTRACTORS FOR THE

Abyssinian Expedition.  
Cunard Steam Ship Co.  
Inman Steam Ship Co.  
Montreal Steam Ship Co.  
Oceanic Steam Navigation Co.  
National Steam Ship Co.  
Pacific Steam Ship Co.  
Anchor Steam Ship Co.

Also Makers by Appointment  
to His Excellency  
**THE LORD LIEUTENANT.**



Soda Water, double.  
Soda Water, single.  
Kali, or Potass Water.  
Lemonade.

Ginger Ale, Aromatic.  
Aerated Sarsaparilla.  
Aerated Quinine.  
Aerated Tonic Bitters.

Supercarbonated Lithia Water.  
Winter Beverage.  
Royal Seltzer Water.  
Chalybeate Water.

Carrara Water.  
Aerated Dandelion.  
Pulna Water.  
Vichy Water.

Bismuth Water.  
Lime Juice Syrup.  
Lime Juice.  
Aromatic Orange Bitters.

**53<sup>rd</sup> DUBLIN EXHIBITION, 1872.**—The ONLY PRIZE MEDAL for "Superior Excellence" was Awarded to **CANTRELL & COCHRANE.** ALSO TWO PRIZES VIENNA EXHIBITION, 1873; AND THE GOLD MEDAL, PARIS MARITIME EXHIBITION, 1875. N.B.—Export Orders Packed in a most superior manner for all parts of the World.

## SODA WATER BOTTLE (Codd's Patent).

TO THOSE ABOUT USING A PATENT BOTTLE!

Before deciding, judge of the many advantages that are to be found in this Patent over others. It is, without doubt, the only one that contains all the essentials to make it perfect, and it is therefore no wonder that over 500 Mineral Water Manufacturers in Great Britain alone have given up all other kinds in favour of this. It is the cleanest, as dirty wood or rubber does not go into the drink; there is scarcely any rubber exposed, therefore no taste, as in those stoppers that fall into the Bottle. The contents can be emptied without fear of stopper preventing outflow. The gaseous properties are retained in the drinks, as it is not thrown out of the Waters by the stopper falling into the Bottle, and many other advantages too numerous to mention.

**PRICES ARE NOW REDUCED.**

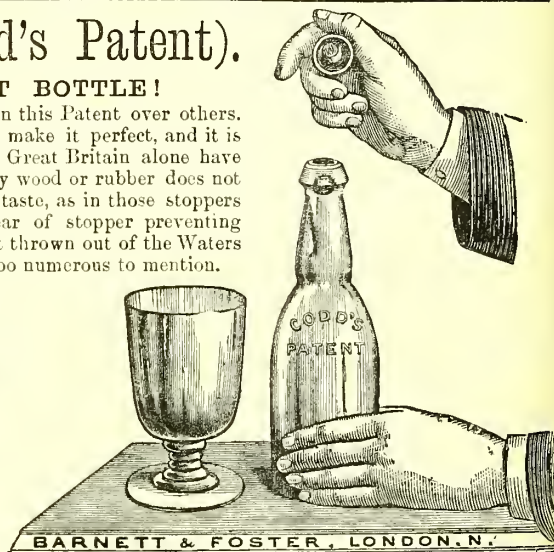
For further information, apply to

**BARNETT, SON & FOSTER,**

SOLE AGENTS,

23<sup>rd</sup> FORSTON STREET, SHEPHERDESS WALK,  
LONDON, N.

Highest Prize Medal for Patent Bottles, Paris, 1878;  
also Vienna, Philadelphia, Cape.

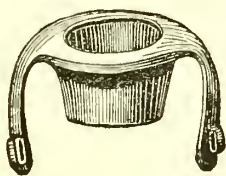


BARNETT & FOSTER, LONDON, N.

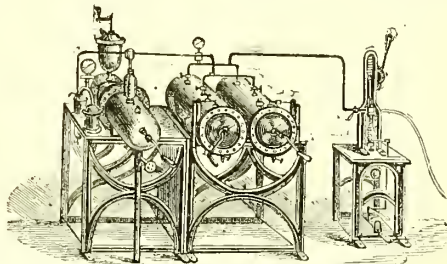
SOLE AGENTS.

## SODA-WATER MACHINERY.

PATENT NOZZLE



FITS ANY BOTTLE.



THE STOPPER



GLASS OR EARTHENWARE.

GENERATOR, BOTTLING CYLINDERS, AND RACK.

**DAVENPORT'S NOZZLE AND STOPPER (Horner's Patent)** is the only Patent for utilising old Bottles, and converting them into Patents. No Corks or Wire, and saving entire cost in one season. The New Nickel-plated Nozzle makes this the most attractive Patent in use. Trial allowed. Prices and Royalty lowered. Send for Samples.

Catalogues of Soda-Water Machines, Ice-Making Machines, Engines, Boilers, Copper Cylinders, Syphons, Seltzogenes, Filters, &c., and all accessories to the Soda-Water Trade.

**AGENTS FOR HAYWARD TYLER & CO'S SODA-WATER MACHINERY.**

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**DAVENPORT & CO.,**

Soda Water Machinists and Manufacturers and General Machine Agents,  
99<sup>N</sup> HIGH HOLBORN, LONDON.



# PURE FLOUR OF EGYPTIAN LENTILS,

IN TINS OR IN BULK.

ESSEX FLOUR AND GRAIN COMPANY, LIVERPOOL ROAD, LONDON, N.

## THE UNIVERSAL KNEADING AND MIXING MACHINE

(PAUL PFLEIDERER'S PATENTS),

Is the most perfect Labour Saving Machine for the Kneading, Mixing, and Malaxation of Paints, Colours, Pill-masses, Lozenge-pastes, Plasters, Pastilles, &c., &c.

See THE CHEMIST AND DRUGGIST of July 14, 1877, page 290; also "Diary for 1879," pp. 12 and 13; also THE BRITISH AND FOREIGN CONFECTIONER, December 1, 1877, page 170.

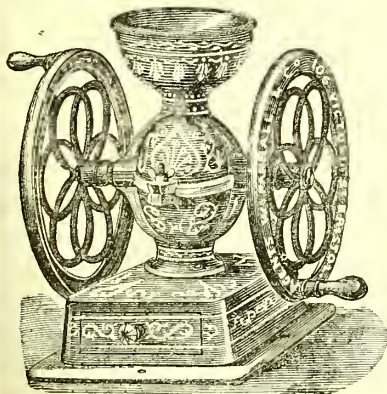
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## AMERICAN DRUG MILLS,

Of which nearly 1,000 have been sold in England  
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Larger Sizes for Steam Power.



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1. These American Mills grind faster than others of equal size.
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4. One pair of Grinders will last from seven to ten years.
5. They Grind fine or coarse by simply turning a Thumb Screw.
6. The interior parts can be opened for inspection in a few seconds.

## LA TROBE'S PURE SOLUBLE COCOA.



Retailed in Canisters,

1s. and 2s.

Supplied to Chemists only, all other Trades refused.

H. L. T.'s production stands entirely upon its own merits, as the Purest Cocoa manufactured.

That the Trade may have an opportunity of testing, H. L. T. sends samples for gratuitous distribution amongst the medical profession upon receiving from Agents a list of same.

La Trobe's

Pure Soluble Cocoa.

Also Manufacturer of

La Trobe's Highbury Bouquet,  
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# NESTLE'S MILK FOOD,

For Infants, Children, and Invalids.

London Depot—7 BARBICAN, E.C.

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine fed cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food for infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet.



Nestle's is the original and genuine Milk Food or Powder. The extensive demand for this Food, its well known superiority and universal recognition by the medical profession, have produced the inevitable imitations. The trade and the public are hereby cautioned. Nestle's Milk Food has stood the test of years. Take no other under any pretence whatever.

NESTLE'S MILK FOOD is put up in tins, packed in lined cases specially for the export trade. Is highly concentrated and in a perfectly dry state. Will keep good in any climate.



Our Wholesale Agents at any port will pack and ship the Food to or for any part of the world.

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by V.-C. MALINS  
will be found in  
"Chemist and  
Druggist," Feb-  
ruary 15, 1877,  
page 76.

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### FINCH, RICKMAN & CO.'S

Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 Broken Wharf, Upper Thames St., London.

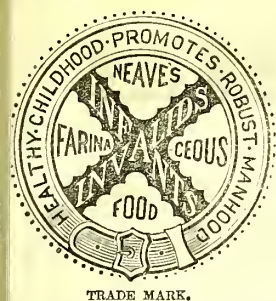
## E. LAZENBY & SON'S PICKLES,

Sauces, and Condiments.—E. LAZENBY & SON, Sole Proprietors of the Celebrated Receipts, and Manufacturers of the Pickles, Sauces, and Condiments so long and favourably distinguished by their name, beg to remind the Public that every article prepared by them is guaranteed as entirely unadulterated.—92 Wigmore Street, Cavendish Square (late 6 Edwards Street, Portman Square), and 18 Trinity Street, London, S.E.

## HARVEY'S SAUCE.—CAUTION—The

admirers of this Celebrated Sauce are particularly requested to observe that each bottle prepared by E. LAZENBY & SON bears the label used so many years, signed "ELIZABETH LAZENBY."





# NEAVE'S FOOD

FOR INFANTS AND INVALIDS,

Is pre-eminently rich in albumenoids and phosphates, and the starch which it contains is in a state readily assimilated by the infantile digestion.



**NEAVE'S FOOD** has received the high and unqualified approval of eminent medical men for many years past. It commands a ready sale, for it is strongly recommended by mothers to the notice of their lady friends; and infants often give it a preference, refusing other foods. As a natural result, the sale has extended rapidly, especially during the past four years, necessitating the erection of extensive premises, again enlarged in December, 1876, where the preparation is carried on under the personal supervision of Mr. NEAVE.

**NEAVE'S FOOD** is sent in large quantities to the Colonies and to the United States. It is prepared with special reference to exportation, for which the 5s. tin is particularly adapted.

**NEAVE'S FOOD** is sold in 1s. and 5s. Tins, and 4d. Tinfoil Packets, by Chemists, Grocers, and Storekeepers at home and abroad.

**PRIZE MEDAL, PARIS MARITIME EXHIBITION, 1875.**

*For Terms, apply to any Wholesale or Export House, or to the Manufacturers,*

**JOSIAH R. NEAVE & CO., FORDINGBRIDGE, ENGLAND.**

Agent for the United States, Mr. J. O. NOXON, 444 Fulton Street, Brooklyn, New York.

Agent for France, M. BERAL, 14 Rue de la Paix, Paris.

## SPECIAL NOTICE TO DRUGGISTS.

Increase your Business by Selling the

## ORIENTAL COMPANY'S TEA.

IN SUBMITTING THEIR TEAS to Agents, the above-named Company desire to offer the following remarks:—

THE PROPRIETORS have been long connected with the EAST, as IMPORT and EXPORT MERCHANTS, and, with the means at their command, are enabled to avail themselves of their experience in purchasing at the proper season, from the best markets, and direct from the TEA PLANTERS, thereby securing the choicest pickings, and saving all intermediate profits between producer and consumer.

THE TEAS being thus bought are carefully cut, sifted, and mixed by the most improved machinery, under the superintendence of a PRACTICAL TEAMAN, whose whole study has been devoted to the ART OF BLENDING TEAS to suit the Tastes of the general public; and it may be added that it is greatly due to judicious blending that the COMPANY'S TEAS have acquired the position they now hold.

INDIAN TEAS have within the last few years obtained such favour with connoisseurs for Strength, Aroma, and Delicacy of Flavour, that THE ORIENTAL COMPANY have introduced, as a SPECIALTY, a blend of these fine Teas, the sale of which has attained such proportions as to warrant the assertion that it produces the most delicious beverage ever offered to the public.

THE TEAS are packed in specially-prepared wrappers, with TINFOIL LINING, in  $\frac{1}{4}$ -lb.,  $\frac{1}{2}$ -lb., and 1-lb. Packets; 5-lb., 10-lb., and 20-lb. Tins; 20-lb. Boxes, Half-chests, and Chests; and retailed as under.

Fine China Blended Tea, Magenta Label					Retail at	2/0 per lb.
Finest	„	„	Blue	„	„	3/0 „
Fine Indian	„	„	Green	„	„	2/6 „
Finest	„	„	Yellow	„	„	4/0 „

*For Terms of Agency and other particulars apply at the Office—*

**418 OXFORD STREET LONDON, W.**

HONOURABLE MENTION, INTERNATIONAL EXHIBITION, 1862.

# ISINGLASS

Of every description, suitable for CHEMISTS, GROCERS, BREWERS,  
WINE COOPERS, &c., imported and cut by**J. W. HART, 5 St. Mary Axe, LONDON.**

Orders accompanied by a remittance executed as under—

<b>RUSSIAN.</b>	<b>BRAZIL.</b>
No. 1, 13/- per lb.; No. 2, 11/6 per lb.;	No. 1, 5/9 per lb.; No. 2, 4/9 per lb.;
No. 3, 9/6 per lb.	No. 3, 3/6 per lb.

PACKED IN SMALL BOXES, 1s. per lb. EXTRA.

## BRANSON'S COFFEE EXTRACT,

For the Immediate Production of Fine and Pure Coffee.

Owing to completed improvements in its manufacture

## BRANSON'S COFFEE EXTRACT

Is now specially prepared for use in hot climates, and is Guaranteed not to become oxydised nor fermented in any change of temperature. It is economical in use, there is no waste, and its permanent stimulant properties are more valuable than those of alcohol. Sold by all chemists in bottles at 1s. and 2s. each.

Wholesale Agents: Barclay & Sons, W. Edwards & Son, J. Sanger & Sons, F. Newbery & Sons,  
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## BROOK & CO.'S DANDELION COFFEE

IS the Best and the Cheapest, containing three times the strength of ordinary Coffee. The above is highly recommended by the Medical Faculty as an Agreeable, Palatable, and Medicinal BEVERAGE. See Reports from Dr. Hassall, M.D., Author of "Food and its Adulterations," &amp;c.; also, Otto Hehner, F.C.S., Analyst. Sold in Tins, 6d., 1s., 1s. 9d., by most respectable Chemists. Wholesale Agents: Goodall, Backhouse &amp; Co., Leeds; Wm. Mather, London; Jas. Woolley, Son &amp; Co. and W. Mather, Manchester; H. Glover, Son &amp; Co., Bradford; and all Wholesale Houses.

Caution—See you get BROOK'S, as inferior qualities are often substituted.

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## Natural Mineral Waters of "Apollinaris," "Hunyadi Janos," Vals,

Vichy, Carlsbad, Seltzer, Kissingen, Homburg, Pullna, Friedrichshall, &amp;c., direct from the Springs.

Also the ARTIFICIAL MINERAL WATERS prepared by Dr. STRUVE &amp; CO., at the Royal German Spa, Brighton, and R. ELLIS &amp; SON, Ruthin.

Appointed Agents for the celebrated "APOLLINARIS WATER."

W. BEST &amp; SONS, Foreign Wine, Spirit, and Mineral Water Merchants, 22 Henrietta Street, Cavendish Square, London, W.

## RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acct.
Plain Black Currant, old square ..	2 6	2 8
" " rough oval ..	2 6	2 8
Black Currant and Ipecacuanha ..	2 6	2 8
Black Currant and Tannin.. ..	3 0	3 3
Black Currant Voice (warm astrigent) ..	3 0	3 3
Black Currant Cough Lozenges ..	3 6	3 10

(Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

**RANDALL & SON, Southampton,**

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.

## THE WANT OF THE DAY.

Registered.



1d., 3d., &amp; 6d.

### MAKES STARCH LINEN AS NEW.

Starched Linen is made to Iron Easier, and is unequalled for Stiffness and Gloss. Sold by most starch sellers, at 1d., 3d., and 6d. each. Wholesale by the Proprietor,

**T. CRITCHLEY,**  
CHEMIST & WHOLESALE DRUGGIST  
**BLACKBURN.**

CAUTION!—Makers and Sellers of imitations will be prosecuted.



ESTABLISHED 1843.

**M. A. CRAVEN,**

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**MEDICATED LOZENGES, REFINED LIQUORICE, JUJUBES, &c.**

**PAVEMENT, CONEY ST., & COPPERGATE, YORK.**

Lozenges of all descriptions made from Customers' private formulæ (or ingredients) and stamped with name if required.

PRICE LIST ON APPLICATION.

## ORANGE-QUININE TONIC-WINE.

"ORANGE-QUININE TONIC-WINE" manufactured by  
henceforth will be sold without a Patent Medicine  
Stamp attached.

Neither a Patent-Medicine License  
nor a Sweets License will be required  
by Dealers for the Sale of it.

The Retail Price will be 2s. 6d. and 1s. 1½d. per bottle.  
Wholesale, 24s. and 10s. 6d. per dozen.

**HIRST, BROOKE & HIRST.**

LEEDS, February 1st, 1879.

Gold Medal, Paris Exhibition.

## FRY'S COCOA EXTRACT,

IN PACKETS AND TINS.

Pure Cocoa only, with the superfluous  
oil extracted.

This pure and delicious Cocoa, consisting exclusively of  
choice Cocoa Nibs from which the superfluous oil has  
been extracted, is strongly recommended to all who  
appreciate the full flavour and fine aroma of Cocoa.

"If properly prepared, there is no nicer or more wholesome preparation  
of Cocoa."—Food, Water, and Air, Edited by Dr. HASSALL.

**J. S. FRY & SONS, BRISTOL & LONDON.**

TRY ALSO

**FRY'S CARACAS COCOA.**—"A delicious preparation.

## CHEMISTS' TEA AGENCY.

**BROKEN-LEAF TEA, 1s. 8d. per lb.**

A Money-saving Tea, absolutely pure, in half-pound packets 10d. The  
small leaf from fine India and China Teas, stronger, richer, and cheaper  
than any whole-leaf tea. Wholesale to Dealers and Sellers and Agents,  
40 lbs. sent free to any railway station in the kingdom.—**WALKER &  
DALRYMPLE.** Warehouses—154 and 155 Whitechapel Road,  
London. P.O.O. payable at Head Office. Bankers—The National Pro-  
vincial Bank of England. N.B.—Samples posted free.

## CHOICE PACKED TOBACCOS.

Best Birdseye, in ¼ lb. tins; also ¼ lb., ⅛ lb., 1/16 lb. packets.  
Superfine Birdseye, in ¼ lb. tins; also ¼ lb., ⅛ lb., 1/16 lb. ,,  
Imperial Birdseye, Foil, 2 oz., 1 oz.

"Yellow Honey from Down  
South." } In ¼ lb. tins;  
also  
This Tobacco is the most highly esteemed } Foil, 2 oz., 1 oz.  
in the States.

"Virgin State," Selected from the } In ¼ lb. tins; also  
Finest Virginia Leaf. } Foil, 2 oz., 1 oz.

Superfine Oriental Returns, } In ¼ lb. tins; also  
A Mild Smoking Tobacco. } Foil, 2 oz., 1 oz.

Fine Turkey Returns, Foil, 2 oz., 1 oz.

## PACKED SHAG.

Superfine Shag	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
Fine Shag	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
Fine Ragg	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
Good Shag	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
"Old Honest"	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
"Uncle Tom"	...	...	...	¼ lb., ⅛ lb., 1/16 lb.
"Aunt Chloe"	...	...	...	¼ lb., ⅛ lb., 1/16 lb.

**E. & W. ANSTIE,**  
**MANUFACTURERS,**  
**DEVIZES, WILTS.**

ESTABLISHED ONE HUNDRED AND FIFTY YEARS.

Protected by Her Majesty's Royal Letters Patent.

**Bracher's "Desideratum Mixer."**

FOR MIXING ALL DESCRIPTIONS OF POWDERS.

ADVANTAGES:

These Machines are specially adapted for mixing Powders of all descrip-  
tions, either in small or large quantities, and are the most rapid and  
efficient mixers in use. They are portable, require no fixing, and can be  
readily taken apart when necessary.

For Grocers and Drysalters they effect a considerable saving of time—  
Coffee and Chicory, and all similar substances, being thoroughly mixed  
within the space of two minutes.

For Druggists, they prove invaluable, for mixing all kinds of powders,  
crushing the knobs or conereted lumps, and separating all refuse or  
foreign substances at the same time.

After mixing, the contents may be easily taken from the Machine, the  
larger sizes discharging from the bottom into Casks or Canisters.

Sizes and Prices on application. Manufactured by

**P. H. BRACHER, 77 High St., Wincanton.**

# OZOKERIT.

## PATENTED.

Grand Medal,  
MOSCOW, 1872.



Grand Medal,  
VIENNA, 1873.

MADE IN ALL SIZES.

At the CENTENNIAL PHILADELPHIA EXHIBITION the highest honours were awarded to

# J. C. & J. FIELD

FOR THEIR EXHIBIT OF

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## PATENTEES & ORIGINAL MANUFACTURERS OF SELF-FITTING CANDLES.

Made in all Sizes. | Made in all Colours. | Burn to the End. | Require no Scraping.  
Made in all Qualities. | Fit all Sockets. | Require no Cutting. | Are Safe, Economical, Cleanly.

CANDLES SPECIALLY ADAPTED FOR EXPORTATION TO HOT CLIMATES.

**OZOKERIT** (Patented). In handsome 1-lb. Packets.

These beautiful Candles are made in ALL SIZES, and from their great hardness and non-liability to bend when exposed to a high temperature, are well adapted for Ball Rooms and Tropical Climates. They possess the highest illuminating power of all descriptions of Candles.



## UNITED SERVICE SOAP,

Of highly emollient properties, and singular durability of Perfume.



Tablets 5 to 1lb.

**TRANSPARENT GLYCERINE TABLETS, TRANSPARENT HONEY TABLETS, BROWN WINDSOR, and all FANCY TOILET SOAPS,**

In Tablets, Squares, or Bars, and in all qualities.

Tablets 3 to 1lb.

**EMOLLIENT "STOCKHOLM TAR SOAP,"**

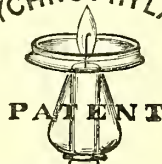
Very detergent, and a powerful disinfectant.

**NIGHT LIGHTS, WAX MORTARS, DISH-WARMERS, LIGHTING-WICK BOUGIES, WAX and TRANSPARENT TAPERS, &c.**

**CARRIAGE CANDLES** in Wax, **LYCHNOPHYLAX** **OZOKERIT**, & Stearine, all sizes.

**PATENT CANDLE GUARDS.**

These Glasses (made to fit 4's and 6's only) more effectually prevent the Guttering of Candles than any article ever introduced.



**PATENT**

Specially adapted for Ball-rooms, Churches, &c.

**PATENT SAVE-ALLS & CANDLE-CUTTERS** for use with these.

Full particulars, with drawing, sent on application.

Wholesale Detailed Price Lists of

**J. C. & J. FIELD, PATENT CANDLE WORKS, LAMBETH MARSH, LONDON, S.E.**



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wing to the unscrupulous methods and false assertions employed by an irresponsible vendor of India Rubber Porous Plasters, we feel constrained to state that our

# INDIA RUBBER POROUS STRENGTHENING PLASTERS

re guaranteed not to contain a single atom of Lead or any other ingredient calculated to injure the consumer; on the contrary, **THEIR COMPOSITION IS PURE VEGETABLE**; in quality and general appearance they are unsurpassed by any maker, and can be obtained by the gross at £1 16s., less 10 per cent.

## THE "LANCET."

"Messrs. SEABURY & JOHNSON have produced a list of Plasters, all made with India Rubber as a basis, which are elegant, stick well, are flexible, easily adapting themselves to the folds of the skin, occasion no inconvenience to the patient, and have the appearance of being made with faithfulness to the British Pharmacopœia. One Plaster worthy of especial praise is the Salicylated Isinglass: it is flexible, and on being slightly wetted makes a good adhesive plaster for surgical purposes."

THE "MEDICAL PRESS AND CIRCULAR."

“Among more recent and valuable Pharmaceutical improvements we would draw the attention of the reader to an elegant and convenient lot of asters prepared by SEABURY & JOHNSON. We have recently tried some of them, and find them to be, severally, very neat, clean, and efficacious preparations. India Rubber has been used as a base in the preparation of the Plasters, by which means the medicinal substances used are protected. With regard to their therapeutical efficacy, and the style in which they are got up, we can speak from experience. Among the other Plasters which have won our great satisfaction, we may mention those in which *Belladonna* and the *Spanish Fly* are, respectively, the chief ingredients.”

"LONDON MEDICAL RECORD."

"Messrs. SEABURY & JOHNSON, of 28 Red Lion Square, London, have forwarded to us a series of Plasters made in a style which deserves warm praise. All of them are of the best make that we have yet seen, and, taken as a series, constitute a considerable improvement in the manufacture of medicinal Plasters, of which surgeons and physicians will, on inspection, easily realise the value. Their Salicylated Inguinal Plaster, spread on strong waterproof cotton cloth, and applied by wetting, is the best surgical adhesive plaster which we have seen. The plaster itself is made of pure gelatine, and antiseptic in character; it adheres firmly and closely on being wetted with a sponge; it does not spoil in any climate. It is obviously from its manufacture calculated to last much longer than the ordinary adhesive plaster. The Mustard Plaster, the Capsicum Plaster, India Rubber Blister plaster, and Pitch Plasters are all equally deserving of commendation."

The "British Medical Journal," "Medical Times and Gazette," "Chemist and Druggist," and many of the Provincial Medical Journals have noticed our productions as worthy of special commendation. Our improved Pharmacopœia and Surgical Plasters in India Rubber combination overcome all objections found in the use of plasters, and present the following advantages and qualities, which will be appreciated by every Physician, Surgeon, and Chemist :—

**Perfect Cleanliness and Reasonable Price.**

Perfect Pliability in any temperature.

Adhesion without Heat or Moisture.

**Combined India Rubber Prevents Decomposition.**

Being Porous they do not slide or move, thereby ensuring increased local action.

They remain serviceable longer than other plasters.

India Rubber Preserves the incorporated Extract or Drug.

Our Mustard Plasters are spread on Cotton Cloth instead of Paper.

Our Isinglass, Court, Corn, and Bunion Plasters are all spread with Chemically-pure Fish Gelatine incorporated with alicyclic Acid. Fish Isinglass treated by our method of purification ensures an article that adheres quickly by the application of the slightest moisture ; in addition to its more susceptible and greater adhesive properties it is rendered antiseptic.

Every Pharmacopoeia Plaster guaranteed to be of Official Strength. We also manufacture in addition to our list of India Rubber Plasters, in the most approved form and improved quality, Mustard, Silk, Isinglass, Medicinal, Corn, Bunion, and Court Plasters in great variety.

If our India Rubber Porous Strengthening Plasters possess any superiority over similar articles it is owing to an increased local action. All Porous Plasters are packed two dozen in a box, and are fully warranted to give perfect satisfaction. We quote a few of the more prominent kinds, subject to 0 per cent. discount monthly.

	Size, 7½ x 5,	Per doz.	Per gross.	Surgeons' Rubber Adhesive Plaster, 7 in. x 1 yd. .	Per doz.	Rolls £0 17 0
India Rubber Porous Strengthening Plasters .....		.4 0	£1 16 0	Mustard Plasters (10 in a box), on Cotton Cloth .....	Per doz.	0 10 0
" " Arnica " .....		.4 0	2 4 0	" " (6 in a package) " .....	"	0 6 0
" " Aconite " .....		.5 0	2 17 0	" " (3 in a package) " .....	"	0 3 0
" " Belladonna (B.P.) " .....		.4 6	2 11 0	" " yard Rolls, 6 x 36 " .....		0 10 0
" " Capsicum " .....		.5 0	2 17 0	" " ½-yard Rolls, 6 x 18 " .....		0 6 0
" " Opium (B.P.) " .....		.7 0	3 16 0	Salcylated Isinglass Plaster, 5-yard Rolls .....	Per Roll	0 5 0
" " Poor Man's " .....		.4 0	2 4 0	" " " 1 " .....		0 1 3
" " Burgundy Pitch (B.P.) Plasters .		.4 0	2 4 0	India Rubber Porous Strengthening Plasters, in 5 yard Rolls, 5 in.		
" " Warming " (B.P.) " .....		.5 0	2 17 0	wide " .....	Per Roll	0 6 3
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# ENO'S "FRUIT SALT," "FRUIT SALINE," OR "FRUIT POWDER."

## ENO v. STEPHENS IN THE COURT OF CHANCERY.

### Shorthand Writer's Notes of Vice-Chancellor Bacon's Summing-up and Judgment.

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the evidence and arguments in the case, was stopped by the VICE-CHANCELLOR in the following words:—

Sir Henry Jackson, I do not think I ought to trouble you. The case has been discussed at very great length. I confess somewhat to my astonishment. When Mr. Hemming declined to adopt the evidence as it was before the Court of Appeal, and put the Plaintiff to prove by the same evidence the same facts which had been proved before, I was under the impression that he meant to call witnesses on his own behalf. If that had been, as it probably may have been his intention at that time, there would have been a reason perhaps for repeating over again at very great length and considerable expense, of course to somebody, the evidence upon which the Court of Appeal had acted—I say nothing about what was done in this Court, but the Court of Appeal had acted upon that evidence. The case, however, concludes, and no evidence whatever is adduced by the Defendant—not even his own statement in his Defence is verified by his own affidavit. What is to be done with a case like that? The whole principle of the case was decided upon the first occasion. The Court of Appeal thought it right to adopt that restriction which I had thought it right to adopt, not to extend the Injunction further than the then present exigency of the occasion required. Not one word of the judgment of the Court of Appeal shows that there should be any restriction, or that there should be any restriction when the case came on for hearing. Now it comes on for hearing upon precisely the same evidence, and the evidence, among other things, is, that in the circular which accompanies this bottle of salt, the words to which the Plaintiff particularly objects are repeated by the Defendant, and repeated by means of copying the Plaintiff's circular. Mr. Giffard says nobody buying the bottle would think of looking at the circular, for it is enclosed in the wrapper, and not even visible to the eye. But the case is one in which the Plaintiff complains of the general similarity and the general appearance of the names which are used by the Defendant, and if a purchaser entertained any doubt, if he was puzzled for a moment between "Vinous" or "Vinous," and Eno's—the sounds being, in one mode of pronunciation, very much alike—if he opened the wrapper and read the circular he would say, My doubts are removed; this is what I want—I want Fruit Saline, and here it is—the circular says it is "Fruit Saline."

The Defendant in his statement at the end of the fourth paragraph says he has not "at any time since the month of August, 1877, used the words Fruit Saline, or Fruit Powder, in any label or advertisement or otherwise in connection with the sale of the said preparation." Under the old system if a defendant had put in his answer, as he must, upon oath, he might perhaps have read that passage and said "the Plaintiff's allegation in that respect is denied." The Defence is not put in on oath and the Defendant declines to pledge his oath to that fact. But it does not rest there; for the evidence is clear and conclusive that after the month of August, 1877, when the Plaintiff, not without some degree of forbearance, as it seems to me, was content to take the Defendant's word that he would not repeat that offence which the Plaintiff complained was doing him that injury which he thought he was suffering, he did, in spite of his promise, repeat that which the Plaintiff called an offence and believed to be an injury to him. The case comes to a hearing, the Defendant insists upon the Plaintiff proving his case. At the Defendant's instance the Plaintiff has proved his case, and, among other things, has proved the utter falsehood of that Defence which is set up in the paragraph which I have read. The matter, therefore, is wholly without doubt, without defence, without excuse of any kind that I can perceive, because, when I am told that I must consider what the intention of the parties was, and when I am told, moreover, that there is no evidence that anybody has been deceived, and the Defendant in his defence says nobody has been deceived, his intention to deceive is not contradicted. That is what the Plaintiff imputes to him; and that is what, I think, the Plaintiff establishes not only from the simplicity of the sign, but from the fact that, when the complaint was first made in August, 1877, they were words which the Defendant admitted he had no right to use. For what reason? Because they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling under the title which he had adopted.

Upon the general case, therefore, in my opinion, the matter is beyond all doubt. It is proved that the use of the word "Fruit" with other substantives, "Saline" and "Salt," and so on, has been made by the Defendant since the time when he promised not to make it, when he admitted it was unlawful, and which I have no doubt whatever was wholly unlawful. It is said that he endeavoured to keep his promise by pasting something over the word "Fruit." Well, if that meant anything it is a plain admission of the justice of the Plaintiff's claim in that respect. But how can I consider that that is keeping his promise? Whether that pasting over was to be effectual or not would depend upon the consistency of the paste or glue, or perhaps the humidity of the atmosphere or any other accident. That there was no intention to perform his promise, I am satisfied of, and that there has been no performance of his promise I think is clear.

Upon the general case, therefore, I think the Plaintiff is entitled not only to the Injunction in the terms of the Interlocutory Order, but upon those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is another subject which is so intimately connected with that that I desired to hear them both together, and I am very glad I did, because, as Mr. Giffard has just told me, that is the main question in dispute between the parties. For the Injunction the Defendant does not seem to care much, though he has violated it, in my opinion, plainly; but he says the question is whether there is a title to register this Trade Mark for which the Defendant proposes to apply. Now that depends upon the words of the Act of Parliament which have been used, the more important of which are "so resembling as to be calculated to deceive." That is a question not to be decided by eyesight; I am invited to lay these two devices side by side, and, since they are not identical and since there are

great differences in their external appearance, to decide that they are not calculated to deceive. To that word DECEIVE I have no right to criticise or quarrel with; it is used in the Act of Parliament, and if I were to give one sense to it, it is plainly in my judgment calculated by the Defendant, meant and intended by him, to deceive any person who is not vigilant enough either in eye or in ear to detect at once the difference between Vinous and Eno's, and the difference between Fruit Salt and any other salt, Eno's title being plainly upon his Trade Mark, Eno's Fruit Salt.

It is not, as I have said, by sight; it is not by the use of a microscope; it is by any other means of detecting more or less of resemblance that you can decide a question which the statute contemplates by using the words that I have referred to. But it is whether the Registrar, whose office it is to register, is satisfied before he performs his function by registering the mark, that the applicant's mark does so resemble as to be calculated to deceive. Can any living man doubt that it is not only calculated—that is intended—but that it is also calculated—that is to say, meant and contrived for the purpose of deceiving—else why does he do it? The world is wide, as has been said in the Judgment referred to, and all things in the animate and inanimate world are open to the Defendant to make a device which shall distinguish his goods from those of any other person. But the Plaintiff having appropriated to himself, and enjoyed for years a device in which the principal characteristic consists of a bunch of grapes, with a Latin motto, and the specific description which relates to Eno's Fruit Salt, the Defendant proposes to register a design in which the principal device is the stem of a vine with a bunch of grapes and some leaves, and a Latin motto around it, and it is to be called "Vinous Salt." If there was nothing in the case but the contrast of these two things, it might, perhaps, to some persons, who trusted only to their eyes, be said there was no resemblance between them, or no sufficient resemblance; but the Registrar is bound to take the whole case into his consideration; he is not to be baffled by any mere similarity or dissimilarity. That is not the way that the Court of Appeal, in the latest case that was before it—the Sheffield case—dealt with the question. The Defendant there had a good right anybody in the world could have stamped his own crest or coat of arms, or anything else, upon his commodities. Nobody could dispute it, and nobody, putting the two things together, could say they were so much alike as to deceive. Mr. Hemming insisted that the stamping, being made on a hard metal, was likely to be blurred, and the persons to be deceived. I have a very clear recollection of that case, and I say it would be impossible for a man with eyes, or with one eye, in his head to mistake the device in that case for the device which the Plaintiff desired there to use.

Mr. HEMMING:—Your Lordship will pardon me, I was only quoting the Master of the Rolls.

The VICE-CHANCELLOR:—I know, and have also clearly in my mind what the Master of the Rolls said and what he did not only in the "Dog and Porridge Pot" case, but in that case. The Master of the Rolls' judgment takes a wide and comprehensive view of the subject. He refers to the statute only for the purpose of saying it would be corroborating that view, but what he said was "an honest man who wants to mark his goods never thinks of taking the device partly or wholly which some other tradesman is employing for the purpose of marking his goods," and that I take to be the true principle of the case.

And, taking all these things together, the Plaintiff's evidence in the first place, the total absence of evidence or statement on the part of the Defendant, excepting the ingenious and elaborate statements which Counsel have addressed to me, there being no statement whatever by him at any time except that he admitted he had done wrong in using the word "Fruit," I am asked to say that there is no such resemblance between those two devices as, between those two men, are calculated to mislead in reference to the question of the shape in which they are sent into the world. I think I should be wasting time if I observed further upon it. It is to me clearly manifest not only that there is sufficient resemblance to answer the strictest words of the statute, but that there is a resemblance which has been carefully and intentionally calculated to deceive. And as the Defendant will not pledge his oath to a contrary intention, I cannot come to a contrary conclusion than that the Plaintiff is entitled to go in the terms in which the bill prays for it, extending it therefore beyond the Injunction granted on the Interlocutory Order and upon the motion, to say that the Defendant is not entitled to register the device of a bunch of a vine with a bunch of grapes upon it, and a Latin motto on it and the name "Vinous Salt." There is an end of it therefore.

Sir HENRY JACKSON:—Well, my Lord, of course I must have the costs. The VICE-CHANCELLOR:—You must have the costs of both.

Sir HENRY JACKSON:—And I think I must ask for the Shorthand Notes of the evidence yesterday. That your Lordship has given on occasions. It was impossible for us to avoid recurring that expense although it has proved to be absolutely useless. Your Lordship has given it on several occasions, and I must ask your Lordship for the costs of taking the evidence.

Mr. HEMMING:—I do not think your Lordship is ever in the habit of giving costs of that kind, unless there is some special reason for taking the notes. I do not know whether my friend anticipates an appeal upon that evidence; I am sure he will not say so, and I do not think the Court is in the habit of allowing the costs of a shorthand note of the evidence under such circumstances. It is not taken by arrangement. It is not in every case where there is an arrangement between the two sides, and even when there is an arrangement, it is not in every case that the Court allows these costs. I ask your Lordship not to say anything about them unless a general rule is laid down that in every case either party may require a shorthand writer to be employed. We know that the rule is the other way.

The VICE-CHANCELLOR:—So far from laying down any rule, my notion of this particular subject of the costs incurred by the shorthand writer is that it ought not to be done without a good and sufficient reason for it. Now the reason is to me perfectly apparent and conclusive. Sir Henry Jackson proposed to treat the evidence as it had been used in the Court of Appeal, as being put in here. Mr. Hemming objected to that, and insisted upon the witnesses being examined. In my opinion it became indispensably necessary that a record of that evidence should be kept, and that could only be done according to the present practice of this Court by the employment of a shorthand writer. Mr. Hemming therefore drew down upon his own head the necessity for the employment of a shorthand writer, and having done it without reason as I thought; and having done it without effect as I have decided, in my opinion the costs ought to be included in those costs which the Defendant is bound to pay to the Plaintiff.

Mr. HEMMING:—That does not mean any transcript—there has been no transcript taken.

Sir HENRY JACKSON:—I have the transcript here, and I was prepared to sum up this morning.

Mr. HEMMING:—There was no occasion for it.

Sir HENRY JACKSON:—I do not want of course the costs of any of the speeches; I merely take the transcript of the shorthand notes of the evidence.

The VICE-CHANCELLOR:—I think that must be so, because for anything I know this day week the Lords Justices will have them in their hands.

Mr. HEMMING:—Then would be time to ask for it.

Sir HENRY JACKSON:—My Lord has decided.





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